ATTACHMENT 7

SPECIAL CONDITIONS RATIONALE

VPDES PERMIT PROGRAM
LIST OF SPECIAL CONDITIONS RATIONALE

Name of Condition:

B. Additional Total Residual Chlorine (TRC) Limitations and Monitoring Requirements

Rationale: Required by Water Quality Standards, 9VAC 25-260-170, Fecal coliform bacteria; other waters. Also, 40 CFR 122.41(e) requires the permittee, at all times, to properly operate and maintain all facilities and systems of treatment in order to comply with the permit. This ensures proper operation of chlorination equipment to maintain adequate disinfection.

C. WET Schedule and Limitation

Rationale: Required by the State Water Control Law, Section 62.1-44.15 (3a) and the State's Water Quality Standards (9 VAC 25-260-20). In addition, the VPDES Permit Regulation, 9 VAC 25-31-220 D. and 40 CFR 122.44 (d) require limits necessary to meet water quality standards. In accordance with the VPDES Permit Regulation, 9 VAC 25-31-250, and 40 CFR 122.47, the permit may, when appropriate, specify a schedule of compliance leading to compliance with the Clean Water Act, laws and regulations. See Attachment 9 of this fact sheet for additional justification.

D. OTHER REQUIREMENTS OR SPECIAL CONDITIONS

1. Permit Reopeners

a. Water Quality Standards

Rationale: The VPDES Permit Regulation, 9 VAC 25-31-220 D requires effluent limitations to be established which will contribute to the attainment or maintenance of water quality criteria.

b. Nutrient Enriched Waters Reopener

Rationale: Regulation for Nutrient Enriched Waters and Dischargers within the Chesapeake Bay Watershed, 9VAC25-40 allows reopening of permits to impose monitoring requirements for discharges into waters designated as nutrient enriched in the Water Quality Standards at 9VAC25-260-350 if total phosphorus and total nitrogen in a discharge potentially exceed specified concentrations. The policy also anticipates that future nutrient limits may be needed to control undesirable aquatic plant growth.

c. Total Maximum Daily Load (TMDL) Reopener

Rationale: For specified waters, Section 303(d) of the Clean Water Act requires the development of total maximum daily loads necessary to achieve the applicable water quality standards. The TMDL must take into account seasonal variations and a margin of safety. In addition, Section 62.1-44.19:7 of the State Water Control Law requires the development and implementation of plans to address impaired waters, including TMDLs. This condition allows for the permit to be either modified or, alternatively, revoked and reissued to incorporate the requirements of a TMDL once it is developed. In addition, the reopener recognizes that, in according to Section 402(o)(1) of the Clean Water Act, limits and/or conditions may be either more or less stringent than those contained in this permit. Specifically, they can be relaxed if they are the result of a TMDL, basin plan or other wasteload allocation prepared under Section 303 of the Act.

2. Licensed Operator Requirement

Rationale: The Permit Regulation, 9 VAC 25-31-200 D and Code of Virginia 54.1-2300 et. seq., Rules and Regulations for Waterworks and Wastewater Works Operators (18 VAC 160-20-10 et seq.) requires licensure of operators.

3. Operations & Maintenance (O & M) Manual

Rationale: The State Water Control Law, Section 62.1-44.21 allows requests for any information necessary to determine the effect of the discharge on State waters. Section 401 of the Clean Water Act requires the permittee to provide opportunity for the state to review the proposed operations of the facility. In addition, 40 CFR 122.41 (e) requires the permittee, at all times, to properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) in order to achieve compliance with the permit (includes laboratory controls and QA/QC).

4. Nutrient Reporting Calculations

Rationale: §62.1-44.19:13 of the Code of Virginia defines how annual nutrient loads are to be calculated; this is carried forward in 9 VAC 25-820-70. As annual concentrations (as opposed to loads) are limited in the individual permit, this special condition is intended to reconcile the reporting calculations between the permit programs, as the permittee is collecting a single set of samples for the purpose of ascertaining compliance with two permits.

5. Notification Levels

Rationale: The VPDES Permit Regulation, 9 VAC 25-31-200 and 40 CFR 122.42 (a) require notification of the discharge of certain parameters at or above specific concentrations for existing manufacturing, commercial mining and silvicultural discharges.

6. Quantification Levels Under Part I.A.

Rationale: States are authorized to establish monitoring methods and procedures to compile and analyze data on water quality, as per 40 CFR part 130, Water Quality Planning and Management, subpart 130.4. Section b. of the special condition defines QL and is included per BPJ to clarify the difference between QL and MDL.

7. Compliance Reporting Under Part I.A.

Rationale: Defines reporting requirements for toxic parameters and some conventional parameters with quantification levels to ensure consistent, accurate reporting on submitted reports.

8. Materials Handling and Storage

Rationale: The VPDES Permit Regulation, 9 VAC 25-31-50 A., prohibits the discharge of any wastes into State waters unless authorized by permit. The State Water Control Law, Sec. 62.1-44.18:2, authorizes the Board to prohibit any waste discharge which would threaten public health or safety, interfere with or be incompatible with treatment works or water use. Section 301 of the Clean Water Act prohibits the discharge of any pollutant unless it complies with specific sections of the Act.

9. Minimum Freeboard

Rationale: Minimize the discharge of untreated wastewater to the groundwater or surface waters. 9 VAC 25-32-30.A prohibits a point source discharge of pollutants to surface waters except in the case of a storm event greater than 25-year, 24 hour storm.

10. Storm Water Discharge Exception

Rationale: 9 VAC 25-32-30.A of the VPA Permit Regulation requires all pollutant management activities covered within a permit including a no discharge permitted outfall maintain no point source discharge of pollutants to surface waters except in the case of a storm event greater than 25-year, 24-hour storm. In addition, Guidance Memo No 96-004 dated August 6, 1996, all no discharge permitted outfalls shall include this as a standard condition such that all pollutant management activities shall maintain no point source discharge.

11. Solids Handling and Disposal Plan

Rationale: In addition, the Biosolids Use Regulation, 12 VAC 5-585-330 and 340, specifies the general purpose and control requirments for an O&M Manual in order to facilitate proper O&M of the facilities to meet requirements of the regulation.

ATTACHMENT 8

TOXICS MONITORING/TOXICS REDUCTION/ WET LIMIT RATIONALE

8-1

MEMORANDUM

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

TIDEWATER REGIONAL OFFICE

5636 Southern Boulevard Virginia Beach, VA 23462

SUBJECT: Whole Effluent Toxicity (WET) Limit Language for Tyson Farms, Inc. VA0004049

TO: Debbie Thompson

FROM: Deanna Austin

DATE: 10/7/15

COPIES:

Tyson Food operates a chicken processing plant on the Eastern Shore. Outfall 001 discharges the processing plant effluent and stormwater runoff. The discharge is to an unnamed tributary of Sandy Bottom Branch. The facility has a whole effluent toxicity (WET) limit of 1.724 TUc (NOEC > 58%) and monitors quarterly. The table below shows the data gathered during the current permit term (2010-2015).

OUTFALL	DESCRIPT	SPECIES	SAMPLEDT	SURVIVAL	NOEC	TU	LAB
001	Quarterly Chronic WET Test	C.d.	25-Apr-11	100	58	1.72	CBI
001	Quarterly Chronic WET Test	C.d.	26-Sep-11	100	100	1	CBI
001	Quarterly Chronic WET Test	C.d.	24-Oct-11	100	100	1	CBI
001	Quarterly Chronic WET Test	C.d.	16-Jan-12	100	100	1	CBI
001	Quarterly Chronic WET Test	C.d.	07-May-12	100	100	1	CBI
001	Quarterly Chronic WET Test	C.d.	16-Jul-12	100	100	1	CBI
001	Quarterly Chronic WET Test	C.d.	15-Oct-12	100	100	1	CBI
001	Quarterly Chronic WET Test	C.d.	21-Jan-13	100	100	1	CBI
001	Quarterly Chronic WET Test	C.d.	08-Apr-13	100	100	1	CBI
001	Quarterly Chronic WET Test	C.d.	14-Jul-13	100	100	1	CBI
001	Quarterly Chronic WET Test	C.d.	21-Oct-13	100	58	1.72	CBI
001	Quarterly Chronic WET Test	C.d.	09-Mar-14	100	100	1	CBI
001	Quarterly Chronic WET Test	C.d.	04-May-14	100	100	1	CBI
001	Quarterly Chronic WET Test	C.d.	13-Jul-14	100	100	1	CBI
001	Quarterly Chronic WET Test	C.d.	06-Oct-14	100	58	1.72	CBI
001	Quarterly Chronic WET Test	C.d.	11-Jan-15	100	100	1	CBI

Monitoring will continue at 1/3 months for the reissued permit. Although there has been compliance with the limit during this permit term, the plant has been experiencing some upset conditions recently and decreasing monitoring is not warranted at this time.

C. WHOLE EFFLUENT TOXICITY (WET) LIMITATION MONITORING REQUIREMENTS FOR OUTFALL 001

1. The Whole Effluent Toxicity (WET) Limitation in Part I.A. for outfall 001 is a final limit. The limit is:

Chronic 1.724 TU_c (NOEC $\geq$ 58.0% Effluent)

2. The permittee shall conduct quarterly chronic toxicity tests using 24-hour flow-proportioned composite samples of final effluent from outfall 001. Toxicity samples shall be taken at the same time as the other sampling parameters required in Part I.A. of this permit. The chronic test to use is:

a. The chronic tests shall be Chronic 3-Brood Static Renewal Survival and Reproduction Test using Ceriodaphnia dubia

These chronic tests shall be conducted in such a manner and at sufficient dilutions (minimum of five dilutions, derived geometrically) to determine the "No Observed Effect Concentration" (NOEC) for survival and reproduction. The test endpoint (limit) must be represented by a dilution, and if other than 100%, should be bracketed by at least one dilution above and one dilution below it. Express the test NOEC as TU_c (Chronic Toxic Units), by dividing 100/NOEC for DMR reporting. The IC_{25} should be included on the submitted test reports.

b. One complete copy of the toxicity test results shall be submitted with the DMR. A complete report must contain a copy of all laboratory benchsheets, certificates of analysis, and all chains of custody.

c. Test procedures and reporting shall be in accordance with the WET testing methods cited in 40 CFR 136.3.

3. The permit may be modified or revoked and reissued to include pollutant specific limits in lieu of a WET limit should it be demonstrated that toxicity is due to specific parameters. The pollutant specific limits must control the toxicity of the effluent.

ATTACHMENT 9

MATERIAL STORED

TYSON FOODS, INC. - TEMPERANCEVILLE,VA HATCHERY CHEMICAL LIST

Chemical name	Maximum Gallons on-site	Poundage per gallon	Total Pounds on-site at one time	Pure / Mixture	RQ?	TPQ?	Percentage of TPQ or RQ?	Maxiumum poundage of TPQ or RQ on-site?	TPQ Reporting Threshold (lbs.) (Report on Tier II if amount or over)	RQ Reporting Threshold (lbs.) (Report if spilled over amount)
Hatchery										
EHS CAS 50000 Formaldehyde, 37%	100.00	9.03	903	Mixture	na	na				
CAS 68476346 Diesel Fuel	10,000.00	7.26	72,558	Mixture	na	na				
EHS CAS 74986 Propane	18,000.00	4.2	76,411	Pure	na	na				

TYSON FOODS, INC. - TEMPERANCEVILLE,VA PROCESSING CHEMICAL LIST

Chemical name	Maximum Gallons on-site	Poundage per gallon	Total Pounds on-site at one time	Pure / Mixture	RQ?	TPQ?	Percentage of TPQ or RQ?	Maxiumum poundage of TPQ or RQ on-site?	TPQ Reporting Threshold (lbs.) (Report on Tier II if amount or over)	RQ Reporting Threshold (lbs.) (Report if spilled over amount)
Processing										
EHS CAS 7664417 AMMONIA (ANHYDROUS)			78000	Pure	na	na	100%	126220	500.00	500.00
CAS 7778543 Calcium Hypochlorite			1980	Mixture	na	na				
CAS 68476346 Diesel Fuel	15,120	7.26	109708	Mixture	na	na				
CAS 7664382 Fresh FX L-12	6,500	9.2	59605	Mixture	na	na				
CAS 68476335 Fuel Oil # 6	12,000	7.31	87670	Mixture	na	na				
CAS 86290815 Gasoline	500	6.16	3082	Mixture	na	na				
EHS CAS 74986 Propane	30,450	4.2	127890	Pure	na	na				
CAS 7681529 Sodium Hypochlorite 12.5 %	5,000	10.01	50040	Mixture	na	na	12.50%	2082	10,000.00	100.00

9-2

TYSON FOODS, INC. - TEMPERANCEVILLE,VA WASTEWATER CHEMICAL LIST

Chemical name	Maximum Gallons on-site	Poundage per gallon	Total Pounds on-site at one time	Pure / Mixture	RQ?	TPQ?	Percentage of TPQ or RQ?	Maxiumum poundage of TPQ or RQ on-site?	TPQ Reporting Threshold (lbs.) (Report on Tier II if amount or over)	RQ Reporting Threshold (lbs.) (Report if spilled over amount)
Wastewater										
LM-50	5000	11.68	58380		na	na				
CAS 10043-01-3 Aluminum Sulfate	5000	11.09	55461		Yes	No				5,000.00
EHS CAS 74986 Propane	1000	4.2	4200	Pure	na	na				
CAS 1310732 Sodium Hydroxide	5000	17.76	88821	Mixture	na	na	50%	31500		

TYSON FOODS, INC. - TEMPERANCEVILLE,VA RVAF CHEMICAL LIST

Chemical name	Maximum Gallons on-site	Poundage per gallon	Total Pounds on-site at one time	Pure / Mixture	RQ?	TPQ?	Percentage of TPQ or RQ?	Maxiumum poundage of TPQ or RQ on-site?	TPQ Reporting Threshold (lbs.) (Report on Tier II if amount or over)	RQ Reporting Threshold (lbs.) (Report if spilled over amount)
RVAF				Pure	na	na				
CAS 68476335 Fuel Oil # 6	50000	7.31	365500	Mixture	na	na				
CAS ?? Poultry Fat	85000	7.50	637500	Mixture	na	na				
EHS CAS 74986 Propane	400	4.2	1680	Pure	na	na				
CAS 7775-09-9 Sodium Chlorate (Pyrate)	3000									
EHS CAS 7664-93-9 Sulfuric Acid (aqueous)	3000	15.35	46037							

ATTACHMENT 10

RECEIVING WATERS INFO./ TIER DETERMINATION/STORET DATA/ STREAM MODELING

10-1

Planning Permit Review

Date: 8/12/2015

To: Kristie Britt, TRO

Permit Writer: Debra Thompson

Facility: **Tyson Farms, Inc.**

Permit Number: VA0004049

Issuance, Reissuance or Modification (if Modification describe): Reissue

Permit Expiration Date: 12/5/2015

Waterbody ID (ex: VAT-G15E): VAT-C10R

Topo Name: Hallwood

Facility Address: *11224 Lankford Highway, Temperanceville, VA 23442*

Receiving Stream: Attached are topographic maps showing facility property boundaries and outfall(s) locations for those included in this request.

Stream Name: UT to Sandy Bottom Branch	
Stream Data Requested?	
Outfall #: 001	**Lat Lon: 37 53 30 75 33 57**
Outfall #:	**Lat Lon:**
Outfall #:	**Lat Lon:**
Stream Name (2):	
Stream Data Requested?	
Outfall #:	**Lat Lon:**
Outfall #:	**Lat Lon:**
Outfall #:	**Lat Lon:**

If greater than 2 receiving streams or 3 outfalls per stream please provide a separate table with outfall listings and Latitude Longitude description.

Planning Review:

303 (d): Indicate Outfalls which discharge directly to an impaired (Category 5) stream segment and parameters impaired	
Outfall 001 discharged to the Unnamed Tributary to Sandy Bottom Branch (adjacent to Tyson Foods, Inc), VAT-C10R_XCX01A08, which is listed as impaired on the 303d list.	
Tier Determination	
Tier	Outfall 001 discharges to a Tier 1 water with data that show existing water quality is not better than water quality standards. See Attachment 1.
Tier	
Management Plan	
Is the facility Referenced in a Management Plan?	Yes – See Attachment 2.
Are limits contained in a Management Plan?	Yes – See Attachment 2.

Review will be completed in 30 days of receipt of request.

Additional Comments:

UT to Sandy Bottom Branch is listed as impaired due to Aquatic Life (Benthic) and Recreation Use (E. Coli) water quality standard exceedances. DMO 8/13/2015

Virginia Administrative Code
Title 9. Environment
Agency 25. State Water Control Board
Chapter 720. Water Quality Management Planning Regulation

9VAC25-720-110. Chesapeake Bay -- Small Coastal -- Eastern Shore River Basin.

A. Total maximum daily loads (TMDLs).

TMDL #	Stream Name	TMDL Title	City/County	WBID	Pollutant	WLA[1]	Units
1.	Parker Creek	Benthic Total Maximum Daily Load (TMDL) Development for Parker Creek, Virginia	Accomack	D03E	Total phosphorus	664.2	LB/YR
2.	Pettit Branch	Benthic Total Maximum Daily Load (TMDL) Development for the Pettit Branch Watershed	Accomack	D02R	Total phosphorus	0.01	LB/D
3.	Mill Creek	Total Maximum Daily Load for Dissolved Oxygen in Mill Creek, Northampton County, Virginia	Northampton	D06R	Organic carbon as TC	30.53	LB/D
4.	Mill Creek	Total Maximum Daily Load for Dissolved Oxygen in Mill Creek, Northampton County, Virginia	Northampton	D06R	Nutrients as TN	10.07	LB/D
5.	Folly Creek	Total Maximum Daily Loads of Pathogens for Folly Creek in Accomack County, Virginia	Accomack	D03E	Total nitrogen	2.6	LBS/D
6.	Gargathy Creek	Total Maximum Daily Loads of Dissolved Oxygen and Pathogens for Gargathy Creek (Upper, Lower, and Riverine Portions) in Accomack County, Virginia	Accomack	D03E	Total nitrogen	1.9	LBS/D
7.	Assawoman Creek	Bacteria Total Maximum Daily Load (TMDL) Development for the Assawoman Creek Watershed	Accomack	D02	Fecal coliform	1.12E+09	MPN/day
8.	Back River	Total Maximum Daily Loads of Bacteria for Back River	Hampton, Poquoson, York	C07	Fecal coliform	3.87E+14	counts/year
9.	Barlow Creek (#191)	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Barlow and Jacobus Creeks	Northampton	C14	Fecal coliform	N/A[2]	MPN/day
10.	Jacobus Creek (#9D)	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Barlow and Jacobus Creeks	Northampton	C14	Fecal coliform	N/A[2]	MPN/day
11.	Jackson Creek (84A)	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Broad and Jackson Creeks	Middlesex	C03	Fecal coliform	N/A[2]	MPN/day
12.	Jackson Creek (84B)	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Broad and Jackson Creeks	Middlesex	C03	Fecal coliform	N/A[2]	MPN/day
13.	Browns Bay	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Browns Bay and Monday Creek	Gloucester	C06	Fecal coliform	N/A[2]	MPN/day
14.	Monday Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Browns Bay and Monday Creek	Gloucester	C06	Fecal coliform	N/A[2]	MPN/day
15.	Cherrystone Inlet, Kings Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination -	Northampton	C15, C16	Fecal coliform	N/A[2]	MPN/day

		Cherrystone Inlet					
16.	Chesconessex Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Chesconessex Creek	Accomack	C11	Fecal coliform	N/A[2]	MPN/day
17.	Cockrell Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Condemnation Areas Listed Due to Bacteria Contamination - Cockrell Creek	Northumberland	C01	Fecal coliform	5.98E+10	MPN/day
18.	Craddock Creek (A)	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination	Accomack	C13	Fecal coliform	N/A[2]	MPN/day
19.	Bagwell Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Condemnation Areas Listed Due to Bacteria Contamination - Deep, Hunting and Bagwell Creeks	Accomack	C10	Fecal coliform	N/A[2]	MPN/day
20.	Deep Creek (#138A)	Total Maximum Daily Load (TMDL) Report for Shellfish Condemnation Areas Listed Due to Bacteria Contamination - Deep, Hunting and Bagwell Creeks	Accomack	C10	Fecal coliform	N/A[2]	MPN/day
21.	Hunting Creek (#138C)	Total Maximum Daily Load (TMDL) Report for Shellfish Condemnation Areas Listed Due to Bacteria Contamination - Deep, Hunting and Bagwell Creeks	Accomack	C10	Fecal coliform	N/A[2]	MPN/day
22.	Dividing Creek (22A)	Total Maximum Daily Load (TMDL) Report for Shellfish Condemnation Areas Listed Due to Bacteria Contamination - Dividing Creek	Northumberland	C01	Fecal coliform	N/A[2]	MPN/day
23.	Prentice Creek (22C)	Total Maximum Daily Load (TMDL) Report for Shellfish Condemnation Areas Listed Due to Bacteria Contamination - Dividing Creek	Northumberland	C01	Fecal coliform	N/A[2]	MPN/day
24.	Prentice Creek (22D)	Total Maximum Daily Load (TMDL) Report for Shellfish Condemnation Areas Listed Due to Bacteria Contamination - Dividing Creek	Northumberland	C01	Fecal coliform	N/A[2]	MPN/day
25.	Unnamed cove of Dividing Creek (22B)	Total Maximum Daily Load (TMDL) Report for Shellfish Condemnation Areas Listed Due to Bacteria Contamination - Dividing Creek	Northumberland	C01	Fecal coliform	N/A[2]	MPN/day
26.	East River	Total Maximum Daily Load (TMDL) Report For Shellfish Waters Impaired by Bacteria - East River and Put in Creek	Mathews	C04	Fecal coliform	N/A[2]	MPN/day
27.	Put In Creek	Total Maximum Daily Load (TMDL) Report For Shellfish Waters Impaired by Bacteria - East River and Put in Creek	Mathews	C04	Fecal coliform	N/A[2]	MPN/day
28.	Finney Creek, upper	Total Maximum Daily Loads of Pathogens for Finney Creek	Accomack	D03	Enterococci	7.97E+07	cfu/day
29.	Rattrap Creek	Total Maximum Daily Loads of Pathogens for Finney Creek	Accomack	D03	Enterococci	2.08E+08	cfu/day
30.	Folly Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Folly Creek	Accomack	D03	Fecal coliform	N/A[2]	MPN/day
31.	Gargathy Creek, riverine	Total Maximum Daily Loads of DO and Pathogens for Gargathy Creek (-Upper, -Lower, and Riverine Portions)	Accomack	D03	E. coli	1.80E+08	cfu/day
32.	Balls Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed	Northumberland	C01	Fecal coliform	N/A[2]	MPN/day

		Due to Bacterial Contamination - Great Wicomico River					
33.	Great Wicomico River	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Great Wicomico River	Northumberland	C01	Fecal coliform	N/A[2]	MPN/day
34.	Tipers Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Great Wicomico River	Northumberland	C01	Fecal coliform	N/A[2]	MPN/day
35.	Warehouse Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Great Wicomico River	Northumberland	C01, A34	Fecal coliform	N/A[2]	MPN/day
36.	Whays Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Great Wicomico River	Northumberland	C01	Fecal coliform	N/A[2]	MPN/day
37.	Guilford Creek (#176B)	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Messongo and Guilford Creeks	Accomack	C10	Fecal coliform	None[2]	MPN/day
38.	Young Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Messongo and Guilford Creeks	Accomack	C10	Fecal coliform	None[2]	MPN/day
39.	Holdens Creek, upper and lower	Fecal Coliform Total Maximum Daily Load Development for Holdens Creek, Sandy Bottom Branch, and Unnamed Tributary to Sandy Bottom Branch	Accomack	C10	Fecal coliform	N/A[2]	counts/day
40.	Sandy Bottom Branch and UT to Sandy Bottom Branch	Fecal Coliform Total Maximum Daily Load Development for Holdens Creek, Sandy Bottom Branch, and Unnamed Tributary to Sandy Bottom Branch	Accomack	C10	E. coli	4.80E+09	cfu/day
41.	Davis Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Chesapeake Bay: Horn Harbor, Doctors and Davis Creek Watersheds	Mathews	C04	Fecal coliform	N/A[2]	MPN/day
42.	Doctors Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Chesapeake Bay: Horn Harbor, Doctors and Davis Creek Watersheds	Mathews	C04	Fecal coliform	N/A[2]	MPN/day
43.	Horn Harbor	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Chesapeake Bay: Horn Harbor, Doctors and Davis Creek Watersheds	Mathews	C04	Fecal coliform	N/A[2]	MPN/day
44.	Hungars Creek	Bacteria Total Maximum Daily Load (TMDL) Development for the Hungars Creek Watershed	Northampton	C14	Fecal coliform	5.44E+08	MPN/day
45.	Indian Creek	Indian, Tabbs, Dymer, and Antipoison Creeks Total Maximum Daily Load (TMDL) Report for Shellfish Condemnation Areas Listed Due to Bacteria Pollution	Northumberland	C01	Enterococci	6.76E+08	cfu/day
46.	Davenport Creek	Indian, Tabbs, Dymer, and Antipoison Creeks Total Maximum Daily Load (TMDL) Report for	Lancaster	C01	Fecal coliform	1.38E+08	MPN/day

		Shellfish Condemnation Areas Listed Due to Bacteria Pollution					
47.	Long Creek	Indian, Tabbs, Dymer, and Antipoison Creeks Total Maximum Daily Load (TMDL) Report for Shellfish Condemnation Areas Listed Due to Bacteria Pollution	Lancaster	C01	Fecal coliform	3.17E+08	MPN/day
48.	Lees Cove	Indian, Tabbs, Dymer, and Antipoison Creeks Total Maximum Daily Load (TMDL) Report for Shellfish Condemnation Areas Listed Due to Bacteria Pollution	Lancaster	C01	Fecal coliform	2.51E+08	MPN/day
49.	Georges Cove	Indian, Tabbs, Dymer, and Antipoison Creeks Total Maximum Daily Load (TMDL) Report for Shellfish Condemnation Areas Listed Due to Bacteria Pollution	Lancaster	C01	Fecal coliform	7.01E+08	MPN/day
50.	Hunts Cove	Indian, Tabbs, Dymer, and Antipoison Creeks Total Maximum Daily Load (TMDL) Report for Shellfish Condemnation Areas Listed Due to Bacteria Pollution	Lancaster	C01	Fecal coliform	1.05E+09	MPN/day
51.	Ashley Cove	Indian, Tabbs, Dymer, and Antipoison Creeks Total Maximum Daily Load (TMDL) Report for Shellfish Condemnation Areas Listed Due to Bacteria Pollution	Lancaster	C01	Fecal coliform	1.17E+09	MPN/day
52.	Bells Creek	Indian, Tabbs, Dymer, and Antipoison Creeks Total Maximum Daily Load (TMDL) Report for Shellfish Condemnation Areas Listed Due to Bacteria Pollution	Northumberland	C01	Fecal coliform	1.25E+09	MPN/day
53.	Henrys Creek	Indian, Tabbs, Dymer, and Antipoison Creeks Total Maximum Daily Load (TMDL) Report for Shellfish Condemnation Areas Listed Due to Bacteria Pollution	Northumberland	C01	Fecal coliform	2.13E+09	MPN/day
54.	Barnes Creek	Indian, Tabbs, Dymer, and Antipoison Creeks Total Maximum Daily Load (TMDL) Report for Shellfish Condemnation Areas Listed Due to Bacteria Pollution	Northumberland	C01	Fecal coliform	3.65E+09	MPN/day
55.	Tabbs Creek	Indian, Tabbs, Dymer, and Antipoison Creeks Total Maximum Daily Load (TMDL) Report for Shellfish Condemnation Areas Listed Due to Bacteria Pollution	Lancaster	C01	Fecal coliform	5.36E+09	MPN/day
56.	Dymer Creek	Indian, Tabbs, Dymer, and Antipoison Creeks Total Maximum Daily Load (TMDL) Report for Shellfish Condemnation Areas Listed Due to Bacteria Pollution	Lancaster	C01	Fecal coliform	8.25E+09	MPN/day
57.	Antipoison Creek	Indian, Tabbs, Dymer, and Antipoison Creeks Total Maximum Daily Load (TMDL) Report for Shellfish Condemnation Areas Listed Due to Bacteria Pollution	Lancaster	C01	Fecal coliform	8.60E+09	MPN/day
58.	Indian Creek (including Arthur and Pitmans Creeks)	Indian, Tabbs, Dymer, and Antipoison Creeks Total Maximum Daily Load (TMDL) Report for Shellfish Condemnation Areas Listed Due to Bacteria Pollution	Northumberland	C01	Fecal coliform	3.82E+09	MPN/day
59.	Little Mosquito Creek	Bacteria TMDL Development for the Little Mosquito Creek Watershed	Accomack	D01	Fecal coliform	5.15E+08	MPN/day
60.	Broad Bay, Long	Lynnhaven Bay, Broad Bay and	Virginia Beach	C08	Fecal	9.35E+10	cfu/year

	Creek, and Linkhorn Bay	Linkhorn Bay Watersheds Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacteria Contamination			coliform		
61	Lynnhaven River	Lynnhaven Bay, Broad Bay and Linkhorn Bay Watersheds Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacteria Contamination	Virginia Beach	C08	Fecal coliform	9.01E+11	cfu/year
62.	Mattawoman Creek	TMDL Report for Chesapeake Bay Shellfish Waters: Mattawoman Creek Bacterial Impairment	Northampton	C14	Fecal coliform	1.15E+09	MPN/day
63.	Messongo Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Messongo and Guilford Creeks	Accomack	C10	Fecal coliform	None[2]	MPN/day
64.	Messongo Creek	Bacteria Total Maximum Daily Load (TMDL) Development for the Messongo Creek Watershed	Accomack	C10	Fecal coliform	1.00E+08	MPN/day
65.	Billups Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Gwynn's Island and Milford Haven Watersheds	Mathews	C04	Fecal coliform	N/A[2]	MPN/day
66.	Edwards Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Gwynn's Island and Milford Haven Watersheds	Mathews	C04	Fecal coliform	N/A[2]	MPN/day
67.	Morris Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Gwynn's Island and Milford Haven Watersheds	Mathews	C04	Fecal coliform	N/A[2]	MPN/day
68.	Queens Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Gwynn's Island and Milford Haven Watersheds	Mathews	C04	Fecal coliform	N/A[2]	MPN/day
69.	Stutts Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Gwynn's Island and Milford Haven Watersheds	Mathews	C04	Fecal coliform	N/A[2]	MPN/day
70.	Ball Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Chesapeake Bay: Mill Creek to Dividing Creek	Northumberland	C01	Fecal coliform	N/A[2]	MPN/day
71.	Cloverdale Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Chesapeake Bay: Mill Creek to Dividing Creek	Northumberland	C01	Fecal coliform	N/A[2]	MPN/day
72.	Mill Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Chesapeake Bay: Mill Creek to Dividing Creek	Northumberland	C01	Fecal coliform	N/A[2]	MPN/day
73.	McLean Gut	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Nandua and Curratuck Creeks	Accomack	C13	Fecal coliform	N/A[2]	MPN/day
74.	Nandua Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed	Accomack	C13	Fecal coliform	N/A[2]	MPN/day

		Due to Bacterial Contamination - Nandua and Curratuck Creeks					
75.	Church Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Nassawadox Creek Watershed	Northampton	C13	Fecal coliform	N/A[2]	MPN/day
76.	Holly Grove Cove	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Nassawadox Creek Watershed	Northampton	C13	Fecal coliform	N/A[2]	MPN/day
77.	Nassawadox Creek, upper	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Nassawadox Creek Watershed	Northampton	C13	Fecal coliform	N/A[2]	MPN/day
78.	Warehouse Creek, upper	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Nassawadox Creek Watershed	Northampton	C13	Fecal coliform	N/A[2]	MPN/day
79.	Westerhouse Creek - Part A	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Nassawadox Creek Watershed	Northampton	C13, C14	Fecal coliform	N/A[2]	MPN/day
80.	Westerhouse Creek - Part B	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Nassawadox Creek Watershed	Northampton	C13, C14	Fecal coliform	N/A[2]	MPN/day
81.	Back Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - North River	Gloucester	C04	Fecal coliform	N/A[2]	MPN/day
82.	Blackwater Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - North River	Mathews	C04	Fecal coliform	N/A[2]	MPN/day
83.	Elmington Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - North River	Gloucester	C04	Fecal coliform	N/A[2]	MPN/day
84.	Greenmansion Cove	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - North River	Mathews	C04	Fecal coliform	N/A[2]	MPN/day
85.	North River	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - North River	Mathews	C04	Fecal coliform	N/A[2]	MPN/day
86.	Occohannock Creek, upper	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Occohannock Creek	Accomack	C13	Fecal coliform	N/A[2]	MPN/day
87.	Old Plantation Creek, upper VDH-DSS condemnation	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Old Plantation and Elliots Creeks	Northampton	C16	Fecal coliform	N/A[2]	MPN/day
88.	Onancock Creek, south branch	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Onancock Creek	Accomack	C11	Enterococci	N/A[2]	cfu/day
89.	Onancock Creek, upper	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Onancock Creek	Accomack	C11	Enterococci	N/A[2]	cfu/day
90.	Onancock Creek, north branch	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination -	Accomack	C11	Enterococci	9.94E+08	cfu/day

		Onancock Creek					
91.	Cedar Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Onancock Creek	Accomack	C11	Fecal coliform	N/A[2]	MPN/day
92.	Finneys Creek, upper	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Onancock Creek	Accomack	C11	Enterococci	N/A[2]	cfu/day
93.	Onancock Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Onancock Creek	Accomack	C11	Fecal coliform	N/A[2]	MPN/day
94.	Onancock Creek, central branch	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Onancock Creek	Accomack	C11	Enterococci	N/A[2]	cfu/day
95.	Chesapeake Bay, unnamed tributary (Big Fleets Pond)	Owens Pond, Little Taskmakers Creek, and Un-named Tributary to Chesapeake Bay (Big Fleets Pond) Total Maximum Daily Load Report for Shellfish Condemnation Impaired Due to Bacteria Contamination	Northumberland	C01	Fecal coliform	1.37E+08	MPN/day
96.	Little Taskmakers Creeks	Owens Pond, Little Taskmakers Creek, and Un-named Tributary to Chesapeake Bay (Big Fleets Pond) Total Maximum Daily Load Report for Shellfish Condemnation Impaired Due to Bacteria Contamination	Northumberland	C01	Fecal coliform	3.67E+08	MPN/day
97.	Owens Pond	Owens Pond, Little Taskmakers Creek, and Un-named Tributary to Chesapeake Bay (Big Fleets Pond) Total Maximum Daily Load Report for Shellfish Condemnation Impaired Due to Bacteria Contamination	Northumberland	C01	Fecal coliform	1.56E+09	MPN/day
98.	Oyster Harbor	TMDL Report for Chesapeake Bay Shellfish Waters: Oyster Harbor Bacterial Impairment	Northampton	D05, D06	Fecal coliform	4.28E+08	MPN/day
99.	Parker Creek	Bacteria Total Maximum Daily Load Development for the Parker Creek Watershed	Accomack	D03	Fecal coliform	1.59E+10	MPN/day
100.	Pettit Branch	Total Maximum Daily Load of Bacteria for Pettit Branch	Accomack	D02	E. coli	0	cfu/day
101.	Piankatank River, Cobbs Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Piankatank River, Lower	Mathews	C03, C04	Fecal coliform	N/A[2]	MPN/day
102.	Piankatank River, Healy Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Piankatank River, Lower	Middlesex	C03	Fecal coliform	N/A[2]	MPN/day
103.	Piankatank River, Wilton Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Piankatank River, Lower	Middlesex	C03	Fecal coliform	N/A[2]	MPN/day
104.	Harper Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Piankatank River, Upper	Gloucester	C03	Fecal coliform	N/A[2]	MPN/day
105.	Piankatank River	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination -	King and Queen, Gloucester, Middlesex, Essex	C02, C03	Fecal coliform	N/A[2]	MPN/day

		Piankatank River, Upper					
106.	Pitts Creek, unnamed tributary	Total Maximum Daily Load of Pathogens for the Unnamed Tributary to Pitts Creek	Accomack	C09	E. coli	6.40E+07	cfu/day
107.	Pitts Creek, unnamed tributary	Total Maximum Daily Load on Dissolved Oxygen In Unnamed Tributary to Pitts Creek	Accomack	C09	Total nitrogen	0	lbs/day
108.	Pitts Creek, unnamed tributary	Total Maximum Daily Load on Dissolved Oxygen In Unnamed Tributary to Pitts Creek	Accomack	C09	Total phosphorus	0	lbs/day
109.	Pocomoke Sound and Pocomoke River including Holden Creek, Bulbeggar Creek, and Pitts Creek[3]	Total Maximum Daily Loads of Fecal Coliform for the Restricted Shellfish Harvesting/Growing Areas of the Pocomoke River in the Lower Pocomoke River Basin and Pocomoke Sound Basin	Accomack	C09, C10	Fecal coliform	1.37E+09	MPN/day
110.	Back Creek	Total Maximum Daily Loads of Bacteria for Poquoson River and Back Creek	York	C07	Fecal coliform	1.41E+13	counts/year
111.	Poquoson River	Total Maximum Daily Loads of Bacteria for Poquoson River and Back Creek	Poquoson, York	C07	Fecal coliform	1.12E+14	counts/year
112.	Free School Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Severn River	Gloucester	C06	Fecal coliform	N/A[2]	MPN/day
113.	Heywood Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Severn River	Gloucester	C06	Fecal coliform	N/A[2]	MPN/day
114.	Northwest Branch Severn River	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Severn River	Gloucester	C06	Fecal coliform	N/A[2]	MPN/day
115.	Thorntons Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Severn River	Gloucester	C06	Fecal coliform	N/A[2]	MPN/day
116.	Vaughans Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Severn River	Gloucester	C06	Fecal coliform	N/A[2]	MPN/day
117.	Greenbackville Harbor	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Chincoteague Bay	Accomack	D01	Fecal coliform	N/A[2]	MPN/day
118.	Swan Gut Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Chincoteague Bay	Accomack	D01	Fecal coliform	N/A[2]	MPN/day
119.	The Gulf, upper	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - The Gulf	Northampton	C14	Fecal coliform	N/A[2]	MPN/day
120.	Pungoteague Creek (Warehouse Prong and Bull Run Creek)	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Pungoteague Creek	Accomack	C12	Fecal coliform	N/A[2]	MPN/day
121.	Taylor Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Pungoteague Creek	Accomack	C12, C13	Fecal coliform	N/A[2]	MPN/day
122.	Fox Mill Run	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination -	Gloucester	C05	Fecal coliform	N/A[2]	MPN/day

		Ware River					
123.	Ware River	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Ware River	Gloucester	C05	Fecal coliform	N/A[2]	MPN/day
124.	Wilson Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Areas Listed Due to Bacterial Contamination - Ware River	Gloucester	C05, C06	Fecal coliform	N/A[2]	MPN/day
125.	Cockrell Creek	Total Maximum Daily Load (TMDL) Report for Shellfish Condemnation Areas Listed Due to Bacteria Contamination - Cockrell Creek	Northumberland	C01	Fecal coliform	1.49E+11	cfu/day
126.	Red Bank Creek, riverine	Bacteria TMDL Development in Red Bank Creek and Machipongo River, Virginia	Accomack, Northampton	D04R	E. coli	1.08E+8	cfu/yr
127.	Red Bank Creek, estuarine	Bacteria TMDL Development in Red Bank Creek and Machipongo River, Virginia	Accomack, Northampton	D04E	Enterococci	3.93E+6	cfu/yr
128.	Machipongo River, estuarine	Bacteria TMDL Development in Red Bank Creek and Machipongo River, Virginia	Accomack, Northampton	D04E	Enterococci	9.03E+6	cfu/yr
129.	Red Bank Creek, shellfish	Bacteria TMDL Development in Red Bank Creek and Machipongo River, Virginia	Accomack, Northampton	D04E	Fecal coliform	5.10E+11	counts/yr
130.	Machipongo River, shellfish	Bacteria TMDL Development in Red Bank Creek and Machipongo River, Virginia	Accomack, Northampton	D04E	Fecal coliform	2.04E+12	counts/yr

Notes:
[1]The total WLA can be increased prior to modification provided that DEQ tracks these changes for bacteria TMDLs where the permit is consistent with water quality standards for bacteria.

[2]There were no point source dischargers in the modeled TMDL area.

[3]This WLA represents only the Virginia portion of the watershed.

B. Stream segment classifications, effluent limitations including water quality based effluent limitations, and wasteload allocations.

Small Coastal and Chesapeake Bay
TABLE B1 - CURRENT STREAM SEGMENT CLASSIFICATION

Segment No.	Name	Current State Class
7-12A	Pocomoke Sound	E.L.
7-12B	Messongo Creek	E.L.
7-12C	Beasley Bay	E.L.
7-12D	Chesconessex Creek	E.L.
7-13	Onancock Creek	W.Q.
7-14	Pungoteague	W.Q.
7-12E	Nandua Creek	E.L.
7-15	Occohannock Creek	W.Q.
7-12F	Nassawadox Creek	E.L.
7-12G	Hungars Creek	E.L.
7-12H	Cherrystone Inlet	E.L.
7-12I	South Bay	E.L.
7-12J	Tangier Island	—
7-11A	Chincoteague	E.L.
7-11B	Hog Bogue	E.L.
7-11C	Metomkim Bay	E.L.
7-11D	Machipongo River	E.L.
7-11E	South Ocean	E.L.

Small Coastal and Chesapeake Bay
TABLE B2 - EASTERN SHORE WASTELOAD ALLOCATIONS

		INTERIM WASTELOAD ALLOCATIONS[1] (Current Permit Limits)				FINAL WASTELOAD ALLOCATIONS	
NAME	RECEIVING	BOD_5	SUSPENDED	OIL &	BOD_5 (lb/d)	SUSPENDED SOLIDS	OIL & GREASE

10-11

	STREAM OR ESTUARY	(lb/d)	SOLIDS (lb/d)	GREASE (lb/d)		(lb/d)	(lb/d)
Commonwealth of Va. Rest Area	Pitts Cr.	4.3	4.3	--	4.3	4.3	--
Edgewood Park	Bullbegger Cr.	0.80	0.80	--	0.80	0.80	--
Holly Farms	Sandy Bottom Cr.	167 [3]	167 [3]	10 mg/l	Stream survey/model and determination of final wasteload allocations planned for the summer of 1980.		
Taylor Packing Company	Messongo Cr.	7006 [3]	13010[3]	--	Stream survey/model was run previously. No change in permit anticipated.		
No. Accomack E.S.	Messongo Cr.	1.8	1.4	--	1.8	1.4	--
Messick & Wessels Nelsonia	Muddy Cr.	30mg/l[4]	30mg/l	--	Interim wasteload allocations may be changed based on BAT guidance.		
Whispering Pines Motel	Deep Cr.	4.8	4.8	--	4.8	4.8	--
Town of Onancock	Onancock Cr.	21	21	--	21	21	--
Messick & Wessels	Onancock Cr.	30mg/l[4]	30mg/l[4]	--	Interim wasteload allocations may be changed based on guidance.		
So. Accomack E.S.	Pungoteague Cr.	1.8	1.4	--	1.8	1.4	--
A & P Exmore	Nassawadox Cr.	0.38	0.38	--	0.38	0.38	--
Norstrom Coin Laundry	Nassawadox Cr.	60mg/l[4] max.	60mg/l[4] max.	--	Interim wasteload allocation may be changed based on BAT guidance.		
NH-Acc. Memorial Hospital	Warehouse Cr.	12.5	12.5	--	21.5	12.5	--
Machipongo E.S. & H.H. Jr. High	Trib. to Oresbus Cr.	5.2	5.2	--	5.2	5.2	--
Town of Cape Charles	Cape Charles Harbor	62.6	62.6	--	62.6	62.6	--
America House	Chesapeake Bay	5	5	--	5	5	--
U.S. Coast Guard Chesapeake Bay	Chesapeake Bay	--	--	10/mgl [5]	--	--	10/mgl[5]
U.S. Government Cape Charles AFB	Magothy Bay	Currently No Discharge					
Exmore Foods (Process Water)	Trib. to Parting Cr.	200	100	--	Stream survey/model and determination of final wasteload allocations planned for the summer of 1980.		
Exmore Foods (Sanitary)	Trib. to Parting Cr.	30mg/l [5]	30mg/l[5]	--	30mg/l[5]	30mg/l[5]	--
Perdue Foods (process water)	Parker Cr.	May-Oct 275 367 Nov-Apr. 612 797	--	--	Interim Permit in process. Stream survey/models were run. No substantial change in permit anticipated.		
Perdue Foods (parking lot)	Parker Cr.	30mg/l [5]	30mg/l[5]	--	30mg/l[5]	30mg/l[5]	--
Accomack Nursing Home	Parker Cr.	2.7	2.6	--	2.7	2.6	--
U.S. Gov't NASA Wallops Island	Mosquito Cr.	75	75	--	75	75	--
U.S. Gov't NASA Wallops Island	Cat Cr.	1.25	1.25	--	1.25	1.25	--
F & G Laundromat	Chincoteague Channel	10	4.8	--	Interim wasteload allocations may be changed based on BAT guidance.		
U.S. Coast Guard	Chincoteague Channel	--	--	15mg/l (max.)	--	--	15mg/l (max.)
Virginia-Carolina Seafood	Chincoteague Bay	342	264	5.5	342	264	5.5
Reginald Stubbs Seafood Co. (VA0005813)	Assateague Channel	--	20	95	--	20	95
Reginald Stubbs Seafood Co. (VA00056421)	Assateague Channel	--	20	98	--	20.4[2]	98
Shreaves	Chincoteague Bay	--	16[2]	1.4[2]	--	16[2]	1.4[2]
Chincoteague Seafood	Chincoteague Bay	342	264	5.5	342	264	5.5

Notes:

[1]Water quality data taken from discharge monitoring reports or special studies unless indicated.

[2]NPDES Permit limits given since the permit is new and discharge monitoring reports not yet available. [3]Data from Accomack-Northampton Co. Water Quality Management Plan.

[4] Estimated.

[3]May need a permit -- either company has not responded to SWCB letter or operation has just started up. [4]No limits -- has an NPDES permit, but is not required to monitor.

TABLE B3 - EXISTING OR POTENTIAL SOURCES OF WATER POLLUTION

Location No.	Name	Receiving Estuary	Stream	Flow (MGD)	CBOD (mgl/#D)	NBOD (mgl/#D)	Total Suspended Solids (mgl/#D)	D.O. (mgl)	FC (MPN/ 100ml)	Treatment/Operation
1	Comm. Va. Rest Area	Pocomoke Sound	Pitts Cr.	.003	7/0.18		10/0.3	7.5	1	Extended aeration. Sec. Holding pond, CL_2
2	H.E. Kelley	Pocomoke Sound	Pitts Cr.							Currently no discharges. Out of business
3	Edgewood Park	Pocomoke Sound	Bullbegger Creek	.006 [3]	16/0.8 [2]		16/0.8[2]			PRI, CL_2. Holding Pond
4	Holly Farms	Pocomoke Sound	Sand Bottom Creek	0.18	6/40		15/100	8.0	100	Aerated Lagoons, CL_2
5	J.W. Taylor	Messongo Creek	Trib. to Messongo	.001	60/50		150/125	8.0		Aerated Lagoons
6	No. Accomack E.S.	Messongo Creek	Trib. to Messongo	.005	22/0.9		30/1.3	9.0		Sec., Septic Tank, Sand Filter Holding Pond
7	Messick & Wessells-Nelsonia	Beasly Bay	Muddy Creek	.005	125/5.2		100/4.2			Sec., Extended Aeration
8	Willets Laundromat	Beasly Bay	Hunting Creek							Prl., Septic Tank
9	Byrd Food	Beasly Bay								No discharge industry
10	Whispering Pines Motel	Beasly Bay	Deep Creek	.009	25/1.9		30/2.3	6.0		Sec., Extended Aeration Holding Pond, CL_2
11	Town of Onancock	Onancock Creek	North Fork	.19	2/3.2		3/4.8	7.5	3	Primary, Primary Settling Sludge Digestion, CL_2
12	Messick & Wessels-Onley	Onancock Creek	Joynes Branch	.005	100/4.2		150/6.3			Sec., Extended Aeration
13	~~S Accmk ES Pungtgue~~		Trib. to Pungoteague		24/1.8 [2]		19/1.4[2]			Sec., Septic Tank, Grease Trap, Sand Filter, Holding Pond. No discharge in 4 yrs.
14	Great Atlantic & Pacific Tea Company	Nassawadox	Nassawadox	.001	140/1.2		150/1.3		6.5	Sec., Extended Aeration CL_2
15	Norstrom Coin Laundry	Nassawadox	Trib. to Nassawadox	.008						Sec., Extended Aeration, permit in process
17	N.H.-Acc. Memorial Hospital	Nassawadox	Warehouse Creek	.03	25/1.6		35/2.2	6.5	750	Secondary Aerated Lagoon, CL_2 Holding pond Stab-Lagoon
18	Machipongo E.S. & N.H. Jr. High School	Hungars Creek	Trib. to Oresbus	0.3 [1]	30/5.2 [2]		30/5.2 [2]			Sec., Stab-Lagoon, Holding Pond no discharge in 4 yrs.
19	B & B Laundromat	Cherrystone Inlet	Old Castle Creek							Prl. Septic Tank w/discharger
20	KMC Foods, Inc.	Cherrystone Inlet								No Discharge industry
21	Herbert West Laundromat	Cherrystone Inlet	Kings Creek							Prl. Septic Tank w/Discharger
22	Town of Cape Charles	Cape Charles Harbor	Cape Charles Harbor	.165 [2]	290/400 [3]		139/192 [3]			Raw Sewage, Sewage Treatment to be completed by 1982
23	American House Inn	Chesapeake Bay	Chesapeake Bay		30/5 [2]		30/5[2]			
24	U.S. Coast Guard	Chesapeake Bay	Chesapeake Bay	.001 [2]	30/			5.0 [2]	200 [2]	Bilgewater
25	U.S. Gov't Cape Charles AFS	Magothy	Magothy	.001[2]				5.0 [3]		Sec., CL_2 Aerated Lagoon, currently no discharge
27	Exmore Frozen Foods	Machipongo	Trib. to Parting Cr.	.56	29/135		18/84	6.5		Grass Bays, Screening

28	Exmore Foods (Domestic)	Machipongo	Trib. to Parting Cr.	.02	5/0.8		9/1.5			Septic Tank, Sand Filter
30	Perdue Foods	Metomkin Bay	Parker Creek	1.7	11/156		15/213	6.5	150	Sec., Aerated Lagoon, Holding Pond, CL_2
31	Perdue Foods	Metomkin Bay	Parker Cr.	.01			15/1.3			
32	Accomack Co. Nursing Home	Metomkin Bay	Parker Cr. North Fork	.011	20/1.8		28/2.6	6.5	100	Sec., Extended Aeration, Holding Pond, CL_2
33	U.S. Gov't NASA (Wallops Island)	Hog Creek	Cat Creek	.005	30/		30/			Sec., Stab., Pond, Holding Pond, CL_2
34	Robo Automatic Car	Chincoteague Channel	Little Simoneaton							
35	U.S. Gov't NASA	Chincoteague Channel	Mosquito Creek	.105	10.6/9.3 [3]	112/28	2.0/1.8			Sec., Trickling Filter
36	Trail's End Rec. Vehicle Dev.	Chincoteague Channel	Trib to Mosquito Cr.							Septic Tank and Drainfield
37	Coin-Op Laundromat	Chincoteague Channel	Chincoteague Channel							No discharge
38	F & G Laundromat	Chincoteague Channel	Chincoteague Channel	.005						
39	U.S. Coast Guard	Chincoteague Channel	Chincoteague Channel	.001[2]			30/0.2 [2]		200 [2]	Discharge-Bilgewater
40	Phillip Custis	Ramshorn Bay								Spray Irrigation, no Discharge
43	Boggs (Melfa)	Nickowampus Creek								Septic tank waste lagoons, no discharge
44	Blake (Greenbush)	Deep Creek								Septic tank waste lagoon, no discharge
45	Cherrystone Campground	Kings Creek or Cherrystone Inlet								Stab-Lagoon, Holding pond, no discharge
46	Wallops Sanitary Landfill									Solid waste disposal site, no discharge
47	Chincoteague Dumpsite									Solid waste disposal site, no discharge
48	Bob Town Sanitary Landfill									Solid waste disposal site, no discharge
49	Northampton Sanitary Landfill									Solid waste site, no discharge
52	Dorsey's Seafood Market	Chincoteague								Oysters[5]
54	Va-Carolina Seafood Company, Inc.	Hog-Bogue					1152 Clams 68 Oysters 7.0 Scallops			Surf Clams, Oysters, Scallops
55	Chincoteague Island Oyster Farm	Chincoteague								(Oyster-Boat Operation (grows oysters & clams from larvae)[5]
	Reginald Stubbs Seafood Company	Assateague Channel		.002 [4]	4.2		2.8			Oyster
58	Shreaves Bros.	Chincoteague		.002 [4]	2.07		8.0			Oyster
60	Chincoteague Seafood Co.	Chincoteague		.063 [4]	972		79.9			Surf-Clam
61	Ralph E. Watson Oyster Co.	Chincoteague		.003 [4]	57		53			Oyster
62	McCready Bros. Inc.	Chincoteague								Oyster, no discharge
63	Wm. C. Bunting	Chincoteague		.001 [4]	12		4.8			Oyster
64	Carpenters Seafood	Chincoteague		.001 [4]	4.1		2.1			Oyster
64a	Burtons Seafood, Inc.	Chincoteague		.006 [4]	10.3		.35			Oyster shell stock deal no discharge
69	Jones Bros. Seafood	Chincoteague	Sheepshead Cr.							Oyster & Clams
70	W.E. Jones Seafood	Chincoteague	Sheepshead Creek				46.4[2]			Oyster & Clams

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71	Conner & McGee Seafood	Chincoteague	Sheepshead Creek							Oyster & Clams[5]
72	Hills Oyster Farm	Chincoteague								Oyster & Clams[5]
73	Thomas E. Reed Seafood	Chincoteague	Deep Hole Creek							Oyster & Clams[5]
74	Mears & Powell	Metomkin								Oyster-Building, also used to clean fish[5]
75	Wachapreague Seafood Company	Metomkin	Finney Creek	.036 4			144			Sea Clam
76	George D. Spence and Son	Machipongo								Crab Shedding[5]
77	George D. Spence and Son	Machipongo								Crab Picking, no discharge
78	George T. Bell	Machipongo								No Discharge, Oyster
79	George D. Spence and Son	Machipongo	Upshur Bay							Oyster[5]
80	Peters Seafood	Machipongo								Oyster[6]
81	J.E. Hamblin	Machipongo								Oyster, No discharge
83	Nathan Bell Seafood	Machipongo								Clams, Hard[5]
84	John L. Marshall Seafood	Machipongo								Clams[5]
85	American Original Foods, Inc.	Machipongo	Parting Creek	.151 4	2632		1337			
86	Harvey & Robert Bowen	Machipongo	Parting Creek	.0006 4	6.2		1.7			Oyster
87	H.M. Terry	Machipongo	Parting Creek	.0004 4	3.3		.62			Oyster
89	Webb's Island Seafood	South Ocean Area								Clams[5]
90	Cliff's Seafood	South Ocean Area	Mockhorn Bay							Oyster & Clam[5]
92	H. Allen Smith	South Ocean Area		.037 4	213		522			Sea Clam
94	C & D Seafood, Inc.	South Ocean Area	Oyster Harbor	.04[4]	427		204 sea clam 34 oyster			Sea Clam, Oyster
95	B.L. Bell & Sons	South Ocean Area	Oyster Harbor	.001 4	12		.9			Oyster
98	Lance Fisher Seafood Co.	Pocomoke		.02 4	38		12.8			Oyster and Clam
99	Fisher & Williams/Lester Fisher	Messongo								Building used to shed soft crabs[5]
100	Grady Rhodes Seafood	Messongo								Sold business, Building used to shed soft crabs[5]
101	Bonowell Bros.	Messongo	Pocomoke Sound	.001 4	12		2.5			Oyster
102	John H. Lewis & Co.	Messongo	Starling Creek							Oyster SS only, no discharge
103	Eastern Shore Seafood	Beasly								Crab, no discharge
106	Ashton's Seafood, Inc.	Pungoteague								Shell stock dealer-no discharge
107	Nandua Seafood Co.	Nandua		.0001 4	.2		.9			Crab
108	A.M. Acuff	Cherrystone								Building used for storage, no discharge
110	D.L. Edgerton Co.	Cherrystone	Mud Creek							Conch. In operation. Retort drains overboard & fish wash-down[5]
111 & 112	Tangier Island Seafood, Inc.	Tangier								Crab[5]
113	Tangier	Chesapeake Bay								1000 KW Power Station

114	Chincoteague	Chincoteague Channel								2100 KW Power Station
115	Parksley									2400 KW Power Station
116	Tasley									1400 KW Power Station
117	Bayview									10,000 KW Power Station
118	Cape Charles	Cape Charles Harbor								1200 KW Power Station
119	Burdick Well & Pump Company									Holding Pond, no discharge
120	Marshall & Son Crab Company	Messongo Cr.								Crab Shedding [5]
	Linton & Lewis Crab Co.	Pocomoke Sound								Crab Shedding [5]
122	D.L. Edgerton	Chincoteague								Fish Washdown [5]
123	Evans Bros. Seafood Co.	Pocomoke Sound								Crab Shedding [5]
124	Stanley F. Linton	Messongo	Starling Cr.							Crab Shedding[5]
125	H.V. Drewer & Son	Messongo	Starling Cr.	.035 [4] .018 [4]	349 180		736-clam 198-oyster			Oyster & Clam
126	Chincoteague Fish Co., Inc.	Chincoteague Channel								Fish Washdown[5]
127	Chincoteague Crab Company	Assateague Channel			.18 [2]		.54[2]			Crab & Crab Shedding
128	Aldon Miles & Sons	Pocomoke Sound								Crab Shedding[5]
129	Saxis Crab Co.	Messongo	Starling Cr.							Crab Shedding[5]
	Paul Watkinson SFD	Pocomoke Sound								Crab Shedding[5]
131	Russell Fish Co., Inc.	Chincoteague Channel								Fish [5]
132	Mason Seafood Co.	Chincoteague Channel		.002 [4]	7.7		13.7			Oysters

Notes:
[1]Water quality data taken from Discharge Monitoring Reports or special studies unless indicated.

[2]NPDES Permit limits given since the permit is new and discharge monitoring reports not yet available. [3] Data from Accomack-Northampton Co. Water Quality Management Plan.

[4]Estimated.

[5]May need a permit -- either company has not responded to SWCB letter or operation has just started up. [6]No limits -- has an NPDES permit, but is not required to monitor.

C. Nitrogen and phosphorus wasteload allocations to restore the Chesapeake Bay and its tidal rivers. The following table presents nitrogen and phosphorus wasteload allocations for the identified significant dischargers and the total nitrogen and total phosphorus wasteload allocations for the listed facilities.

Virginia Waterbody ID	Discharger Name	VPDES Permit No.	Total Nitrogen (TN) Wasteload Allocation (lbs/yr)	Total Phosphorus (TP) Wasteload Allocation (lbs/yr)
C16E	Cape Charles Town WWTP	VA0021288	3,046	228
C11E	Onancock WWTP	VA0021253	9,137	685
C13E	Shore Memorial Hospital	VA0027537	1,218	91
C10E	Tangier WWTP	VA0067423	1,218	91
C10R	Tyson Foods – Temperanceville	VA0004049	22,842	1,142
	Unallocated Reserve WLA		3,045	229
	TOTALS:		40,506	2,467

Statutory Authority

§ 62.1-44.15 of the Code of Virginia; 33 USC § 1313(e) of the federal Clean Water Act.

Historical Notes

Derived from Volume 19, Issue 14, eff. April 24, 2003; amended, Virginia Register Volume 22, Issue 03, eff. November 16, 2005; Volume 22,

Issue 16, eff. May 17, 2006; Volume 25, Issue 20, eff. July 8, 2009; Volume 26, Issue 06, eff. December 23, 2009; Volume 27, Issue 12, eff. March 16, 2011; Volume 29, Issue 17, eff. May 22, 2013; Volume 31, Issue 12, eff. March 11, 2015; Volume 31, Issue 18, eff. June 3, 2015; Volume 31, Issue 21, eff. July 30, 2015.

Website addresses provided in the Virginia Administrative Code to documents incorporated by reference are for the reader's convenience only, may not necessarily be active or current, and should not be relied upon. To ensure the information incorporated by reference is accurate, the reader is encouraged to use the source document described in the regulation.

As a service to the public, the Virginia Administrative Code is provided online by the Virginia General Assembly. We are unable to answer legal questions or respond to requests for legal advice, including application of law to specific fact. To understand and protect your legal rights, you should consult an attorney.

ATTACHMENT 11

303(d) LISTED SEGMENTS

TMDL Permit Review 11-1

Date: 8/6/2015

To: Jennifer Howell, TRO √ JSH 9/8/2015

Permit Writer: Debra Thompson

Facility: Tyson Farms, Incorporated.

Permit Number: VA0004049

Issuance, Reissuance or Modification (if Modification describe) : Reissuance

Permit Expiration Date: 12/5/2015

Waterbody ID (ex: VAT-G15E): VAT-C10R

Topo Name: Hallwood

Facility Address: *11224 Lankford Highway, Temperanceville, VA 23442*

Click here to enter text.

Receiving Stream: Attached are topographic maps showing facility property boundaries and outfall(s) locations for those included in this request.

Stream Name: Sandy Bottom Branch	
Click here to enter text.	
Outfall #: 001	**Lat Lon: 37 53 30 75 33 57**
Outfall #: Click here to enter text.	**Lat Lon:** Click here to enter text.
Outfall #: Click here to enter text.	**Lat Lon:** Click here to enter text.
Stream Name (2): Click here to enter text.	
Click here to enter text.	
Outfall #: Click here to enter text.	**Lat Lon:** Click here to enter text.
Outfall #: Click here to enter text.	**Lat Lon:** Click here to enter text.
Outfall #: Click here to enter text.	**Lat Lon:** Click here to enter text.

If greater than 2 receiving streams or 3 outfalls per stream please provide a separate table with outfall listings and Latitude Longitude description.

Is there a design flow change? If yes give the change. Click here to enter text.

TMDL Review:

Is a TMDL IN PROGRESS for the receiving stream? No	
Has a TMDL been APPROVED that includes the receiving stream?	
Yes, see below	
If yes, Include TMDL Name, Pollutant(s) and date of approval:	
• Fecal Coliform Total Maximum Daily Load Development for Holdens Creek, Sandy Bottom Branch, and Unnamed Tributary to Sandy Bottom Branch, Accomack County, Virginia; Fecal coliform, *E.coli*; EPA approval 11/7/2008, SWCB 4/28/2009 • Chesapeake Bay TMDL: EPA approved 12/29/2010 : nitrogen, phosphorus, and TSS	
Is the facility assigned a WLA from the TMDL?	Yes, see below
If Yes, what is the WLA?	
VA0004049 was listed in the bacteria TMDL since it discharges to the UTSBB. The *E. coli.* permit limit is a geometric mean of 126 counts/100 ml. The analysis of available monthly averaged data from January 2001 to February 2008 resulted in a mean fecal coliform concentration of 3 and maximum of 30 counts/100 ml, and a mean flow of 1,007,128 and maximum of 1,940,000 gallons/day. Therefore, the allowable loading for *E. coli* is: WLA =126 Counts/100 ml ×1,007,128 Gallons/Day×37.8541= **4.80E+9 Counts/Day** (TMDL report Section 4.5 and Table 4.6) The bacteria load for the *E.coli* geometric mean is referenced in the Eastern Shore WQMP 9VAC25-720-110 Table A (see Attachment2 from Planning review)	

11-2

TMDL Permit Review

VA0004049 was listed in the Chesapeake Bay TMDL under Bay segment POCMH as a significant discharger. (TMDL Report-Appendix Q). Individual WLAs are presented as Edge of Stream (EOS) and Delivered (DEL) loads. The EOS loads are referenced in the Eastern Shore WQMP 9VAC25-720-110 Table C (see Attachment2 from Planning review)
TN = 22842 lbs/yr (EOS)
TP = 1142 lbs/yr (EOS)
TSS = 60955 lbs/yr (EOS)

Review will be completed in 30 days of receipt of request.

Additional Comments:

Click here to enter text.

Annual Individual WLA's

Type	Facilty	NPDES	EOS TN WLA (lbs/yr)	DEL TN WLA (lbs/yr)	EOS TP WLA (lbs/yr)	DEL TP WLA (lbs/yr)	EOS TSS WLA (lbs/yr)	DEL TSS WLA (lbs/yr)
SIG	TANGIER ISLAND	VA0067423	302,059.00	216,142.68	27,214.00	17,128.68	1,657,394.19	2,713,505.94
SIG	TYSON FOODS, INC.-TEMPERANCEVILLE	VA0004049	1218	1216.272	91	87.5656	9136.68	8370
			22842	22828.76	1142	1139.173	60955	51400
SIG	POCOMOKE CITY WWTP	MD0022551	24,060.00	24,045.03	1,233.00	1,226.74	70,091.68	59,770.00
SIG	SNOW HILL WWTP	MD0022764	17,907.89	17,907.89	1,343.09	1,343.09	134,309.20	134,309.20
			6,091.12	6,091.12	456.83	456.83	45,683.40	45,683.40

epa.gov./reg3wapd/tmdl/ChesapeakBay/tmdlexec.html

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

2012 Impaired Waters - 303(d) List

Category 5 - Waters needing Total Maximum Daily Load Study

Chesa

Cause Group Code / Impaired Use	Water Name / Cause	Cause Category	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)	Initial List Date	TMDL Dev. Date
C08L-04-DO	Lake Smith						
Aquatic Life	Oxygen, Dissolved	5A		184.89		2002	2014
C08L-04-TP	Lake Smith						
Aquatic Life	Phosphorus (Total)	5A		184.89		2010	2022
C08L-06-HG	Lake Trashmore - Western Pond VDH Fish Consumption Advisory for Mercury						
Fish Consumption	Mercury in Fish Tissue	5A		54.39		2006	2018
C08L-06-PCB	Lake Trashmore - Western Pond VDH Fish Consumption Advisory for PCBs						
Fish Consumption	PCB in Fish Tissue	5A		54.39		2006	2018
C09R-02-BAC	Unnamed tributary to Pitts Creek						
Recreation	Escherichia coli	5A			7.32	2004	2016
C09R-02-PH	Unnamed tributary to Pitts Creek						
Aquatic Life	pH	5A			7.32	2006	2018
C10E-02-BAC	Muddy Creek - Upper						
Recreation	Enterococcus	5A	0.214			2006	2018
C10E-12-SF2	Guilford Creek - Upper [No TMDL]						
Shellfishing	Fecal Coliform	5B	0.033			2008	2020
C10E-13-SF	Starling Creek - Lower						
Shellfishing	Fecal Coliform	5B	0.055			2008	2020
C10E-17-SF2	Messongo Creek - Middle [NO TMDL]						
Shellfishing	Fecal Coliform	5B	0.058			2002	2014
C10E-19-SF	Starling Creek - Upper						
Shellfishing	Fecal Coliform	5B	0.036			2012	2024
C10R-01-BAC2	Unnamed tributary from Tyson Foods						
[illegible]	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]
C10R-01-BEN2	Unnamed tributary from Tyson Foods						
[illegible]	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]
C10R-03-BEN	Guilford Creek						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			0.85	2008	2020
C11E-15-SF	Matchotank Creek - Upper						
Shellfishing	Fecal Coliform	5B	0.069			2006	2018
C11E-20-SF	Parkers Creek - Upper & Middle						
Shellfishing	Fecal Coliform	5B	0.046			2008	2020
	Fecal Coliform	5B	0.030			2010	2022
C11E-22-SF	Chesconessex Creek - N. Branch - DSS Condemnation						
Shellfishing	Fecal Coliform	5B	0.030			2010	2022
C11R-01-BAC	Joynes Branch						
Recreation	Escherichia coli	5A			2.17	2008	2020

11-5

Appendix 5 - List of Impaired (Category 5) Waters in 2012

Chesapeake Bay/Atlantic/Small Coastal Basins

Cause Group Code: **C10R-01-BAC2** **Unnamed tributary from Tyson Foods**

Location: This cause encompasses the area south of Makemie Park. A portion of unnamed trib. from origin at outfall 001 of VPDES VA0004049 downstream to the confluence of the UT from north (upstream of Rt 693 crossing).

City / County: Accomack Co

Use(s): Recreation

Cause(s) /
VA Category: Escherichia coli / 5A

The Recreation Use is not supporting based on the exceedances of the criteria for E.coli bacteria (4 viol / 11 obs.) at the downstream station 7-XAZ000.30. This segment is an extension of the stream that was on the CD. The impaired segment was not included in the EPA approved (11/7/2008) TMDL for Ecoli for Holdens Creek and Sandy Bottom Branch and UT to SBB.

Unnamed tributary from Tyson Foods **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli - Total Impaired Size by Water Type:			**1.60**

Sources:

Source Unknown

Appendix 5 - List of Impaired (Category 5) Waters in 2012

Chesapeake Bay/Atlantic/Small Coastal Basins

Cause Group Code: **C10R-01-BEN2** **Unnamed tributary from Tyson Foods**

Location: This cause encompasses the area south of Makemie Park. A portion of unnamed trib. from origin at outfall 001 of VPDES VA0004049 downstream to the confluence of the UT from north (upstream of Rt 693 crossing).

City / County: Accomack Co

Use(s): Aquatic Life

Cause(s) /
VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

The Aquatic Life Use is impaired due to impacts to the stream's benthic population. This assessment is made from the downstream station at DEQ (Bio) station @ 7-XAZ000.30. Benthic impairment assessment is based on biological benthic monitoring noting MI MI:S&F-06,07,09 & S-05,08; SI:F-05,08; VI: S-10] DEQ (BIO) station @ 7-XAZ000.30.

Unnamed tributary from Tyson Foods **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:			**1.60**

Sources:

Source Unknown

11-7

VIRGINIA

Draft 305(b)/303(d)

WATER QUALITY INTEGRATED REPORT

to

CONGRESS and the EPA ADMINISTRATOR

for the

PERIOD

January 1, 2005 to December 31, 2010

DEQ
VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

DCR
Department of Conservation & Recreation
CONSERVING VIRGINIA'S NATURAL AND RECREATIONAL RESOURCES

Richmond, Virginia

March 2012

ATTACHMENT 1-4

ATTACHMENT 12

TABLE III(a) AND TABLE III(b) - CHANGE SHEETS

TABLE III(a)

VPDES PERMIT PROGRAM
Permit Processing Change Sheet

1. Effluent Limits and Monitoring Schedule: (List any changes FROM PREVIOUS PERMIT and give a brief rationale for the changes).

OUTFALL NUMBER	PARAMETER CHANGED	MONITORING LIMITS CHANGED FROM / TO	EFFLUENT LIMITS CHANGED FROM / TO	RATIONALE	DATE & INITIAL
001	TSS (lbs/day) to TSS (lbs/year)	2/week to NA to NA to 1/year	from 167 lb/day average daily load 275 lb/day maximum daily load to 60,955 lbs/year max annual load	Chesapeake Bay TMDL (EPA approved on 12/29/10) requirement of TSS (EOS) max annual load of 60,955 lbs	DLT 9/2015
001	BOD (lbs/day)	No change	from 115 lb/day average daily load 187 lb/day maximum daily load to 167 lb/day average daily load 271 lb/day maximum daily load	In accordance with plant upgrade design flow = 1.25 MGD	DLT 9/2015
001	Oil and Grease (lbs/day)	No change	from 57 lb/day average daily load 100 lb/day maximum daily load to 83 lb/day average daily load 146 lb/day maximum daily load	In accordance with plant upgrade design flow = 1.25 MGD	DLT 9/2015
001	NH3	1/week to 2/week	No change	BPJ for determination of compliance with WQS and protection of WQ	DLT 9/2015

OUTFALL NUMBER	PARAMETER CHANGED	MONITORING LIMITS CHANGED FROM / TO	EFFLUENT LIMITS CHANGED FROM / TO	RATIONALE	DATE & INITIAL
001	Dissolved Oxygen	1/week to 1/day	No change	BPJ for determination of compliance with WQS and protection of WQ	DLT 9/2105

OTHER CHANGES FROM:	CHANGED TO:	DATE & INITIAL
DELETE: Storm water conditions	The two SW outfalls (003, 004) are non regulated, not associated with industrial activity and therefore do not warrant storm water special conditions; in accordance with VPDES Permit manual guidance and SW permitting guidance.	DLT 9/2015
REVISE: Total Residual Chlorine special condition	New disinfection procedures within the plant as mandated by USDA warranted a revision in condition to require monitoring on a routine basis if disinfection occurs daily in the processing plant.	DLT 9/2015
REVISE Whole Effluent Toxicity Requirments	In accordance with reissuance review and evaluation of data	DLT 10/2015

TABLE III(b)

VPDES PERMIT PROGRAM
Permit Processing Change Sheet

1. Effluent Limits and Monitoring Schedule: (List any changes MADE DURING PERMIT PROCESS and give a brief rationale for the changes).

OUTFALL NUMBER	PARAMETER CHANGED	MONITORING LIMITS CHANGED FROM / TO	EFFLUENT LIMITS CHANGED FROM / TO	RATIONALE	DATE & INITIAL
001					

OTHER CHANGES FROM:	CHANGED TO:	DATE & INITIAL

ATTACHMENT 13

NPDES INDUSTRIAL PERMIT RATING WORKSHEET

13-1

NPDES Permit Rating Work Sheet

_X_ Regular Addition
___ Discretionary Addition
___ Score change, but no status change
___ Deletion

NPDES NO: |_V__|_A__|_0__|_0__|_0__|_4__|_0__|_4__|_9__|

Facility Name:

|_T__|_Y__|_S__|_O__|_N__|___|_F__|_A__|_R__|_M__|_S__|___|_I__|_N__|_C__|___|___|___|___|___|___|___|___|___|___|___|___|___|___|___|___|

City: |_T__|_E__|_M__|_P__|_E__|_R__|_A__|_N__|_C__|_E__|_V__|_I__|_L__|_L__|_E__|___|___|___|___|___|___|___|___|___|___|

Receiving Water: |_U__|_T__|___|_S__|_A__|_N__|_D__|_Y__|___|_B__|_O__|_T__|_T__|_O_|_M__|___|_B__|_R__|_A__|_N__|_C__|_H__|__|

Reach Number: |___|___|___|___|___|___|___|___|___|___|___|

Is this facility a steam electric power plant (SIC=4911) with one or more of the following characteristics?

1. Power output 500 MW or greater (not using a cooling pond/lake)
2. A nuclear power plant
3. Cooling water discharge greater than 25% of the receiving stream's 7Q10 flow rate

___ YES: score is 600 (stop here) __X_ NO (continue)

Is this permit for a municipal separate storm sewer serving a population greater than 100,000?

___ YES; score is 700 (stop here)
_X__ NO (continue)

FACTOR 1: Toxic Pollutant Potential

PCS SIC Code: |___|___|___|___| Primary SIC Code: |_2__|_0__|_1__|_5__|

Other SIC Codes: |_2__|_0__|_7__|_7__| |_0__|_2__|_5__|_4__| |___|___|___|___| |___|___|___|___|

Industrial Subcategory Code: |___|___|___| (Code 000 if no subcategory)

Determine the Toxicity potential from Appendix A. Be sure to use the TOTAL toxicity potential column and check one

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
___ No process waste streams	0	0	___ 3.	3	15	___ 7.	7	35
			___ 4.	4	20	___ 8.	8	40
_X_ 1.	1	5	___ 5.	5	25	___ 9.	9	45
___ 2.	2	10	___ 6.	6	30	___ 10.	10	50

Code Number Checked: |___|_1__|

Total Points Factor 1: |_0__|_5__|

FACTOR 2: Flow/Stream Flow Volume *(Complete Either Section A or Section B; check only one)*

Section A--Wastewater Flow Only Considered

Wastewater Type (See Instructions)			Code	Points
Type I:	Flow < 5 MGD	___	11	0
	Flow 5 to 10 MGD	___	12	10
	Flow > 10 to 50 MGD	___	13	20
	Flow > 50 MGD	___	14	30
Type II:	Flow < 1 MGD	___	21	10
	Flow 1 to 5 MGD	___	22	20
	Flow > 5 to 10 MGD	___	23	30
	Flow > 10 MGD	___	24	50
Type III:	Flow < 1 MGD	___	31	0
	Flow 1 to 5 MGD	___	32	10
	Flow > 5 to 10 MGD	___	33	20
	Flow > 10 MGD	___	34	30

Section B--Wastewater and Stream Flow Considered

Wastewater Type (See Instructions)	Percent of Instream Wastewater Concentration at Receiving Stream Low Flow		Code	Points
Type I/III:	< 10%	___	41	0
	> 10% to < 50%	___	42	10
	> 50%	___	43	20
Type II:	<10%	___	51	0
	> 10% to < 50%	___	52	20
	> 50%	__X	53	30

Code Checked from Section A or B: |_5__|_3__|

Total Points Factor 2: |_3__|_0__|

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NPDES Permit Rating Work Sheet

NPDES No.: |_V_|_A_|_0_|_0_|_0_|_4_|_0_|_4_|_9_|

FACTOR 3: Conventional Pollutants

(only when limited by the permit)

A. Oxygen Demanding Pollutant: (check one) _X_ BOD ___ COD ___ Other:_____

Permit Limits: (check one)		*Code*	*Points*
___	< 100 lbs/day	1	0
_X_	100 to 1000 lbs/day	2	5
___	>1000 to 3000 lbs/day	3	15
___	>3000 lbs/day	4	20

Code Checked: |_2_|

Points Scored: |_0_|_5_|

B. Total Suspended Solids (TSS)

Permit Limits: (check one)		*Code*	*Points*
___	< 100 lbs/day	1	0
_X_	100 to 1000 lbs/day	2	5
___	>1000 to 5000 lbs/day	3	15
___	>5000 lbs/day	4	20

Code Checked: |_2_|

Points Scored: |_0_|_5_|

C. Nitrogen Pollutant: (check one) _X_ Ammonia ___ Other: _____

Permit Limits: (check one)		*Code*	*Points*
_X_	< 300 lbs/day	1	0
___	300 to 1000 lbs/day	2	5
___	>1000 to 3000 lbs/day	3	15
___	>3000 lbs/day	4	20

Code Checked: |_1_|

Points Scored: |_0_|_0_|

Total Points Factor 3:|_1_|_0_|

FACTOR 4: Public Health Impact

Is there a public drinking water supply located within 50 miles downstream of the effluent discharge (this includes any body of water to which the receiving water is a tributary)? A public drinking water supply may include infiltration galleries, or other methods of conveyance that ultimately get water from the above referenced supply.

___ YES (if yes, check toxicity potential number below)
_X_ NO (if no, go to Factor 5)

Determine the human health toxicity potential from Appendix A. Use the same SIC code and subcategory reference as in Factor 1. (Be sure to use the human health toxicity group column -- check one below)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
___ No process waste streams	0	0	___ 3.	3	0	___ 7.	7	15
			___ 4.	4	0	___ 8.	8	20
_X_ 1.	1	0	___ 5.	5	5	___ 9.	9	25
___ 2.	2	0	___ 6.	6	10	___ 10.	10	30

Code Number Checked:|___|_1__|

Total Points Factor 4: |_0_|_0_|

NPDES Permit Rating Work Sheet

NPDES No.: |_V_|_A_|_0_|_0_|_0_|_4_|_0_|_4_|_9__|

FACTOR 5: Water Quality Factors

A. Is (or will) one or more of the effluent discharge limits based on water quality factors of the receiving stream (rather than technology-based federal effluent guidelines, or technology-based state effluent guidelines), or has a wasteload allocation been assigned to the discharge?

		Code	Points
_X_	Yes	1	10
___	No	2	0

B. Is the receiving water in compliance with applicable water quality standards for pollutants that are water quality limited in the permit?

		Code	Points
_X_	Yes	1	0
___	No	2	5

C. Does the effluent discharged from this facility exhibit the reasonable potential to violate water quality standards due to whole effluent toxicity?

		Code	Points
_X_	Yes	1	10
___	No	2	0

Code Number Checked: A |_1_| B |_1_| C |_1_|

Points Factor 5: A |_1_|_0_| + B |_0_| + C |_1_|_0_| = |_2_|_0_| TOTAL

FACTOR 6: Proximity to Near Coastal Waters

A. Base Score: Enter flow code here (from Factor 2): |_5_|_3_| *Enter the multiplication factor that corresponds to the flow code:* |_0._|_6_|

Check appropriate facility HPRI Code (from PCS):

	HPRI #	*Code*	*HPRI Score*	Flow Code	Multiplication Factor
___	1	1	20	11, 31, or 41	0.00
				12, 32, or 42	0.05
___	2	2	0	13, 33, or 43	0.10
				14 or 34	0.15
_X_	3	3	30	21 or 51	0.10
				22 or 52	0.30
___	4	4	0	23 or 53	0.60
				24	1.00
___	5	5	20		

HPRI code checked: |___|

Base Score: (HPRI Score) ___30____ **x (Multiplication Factor)** _0.6__ = ___18___ **(TOTAL POINTS)**

B. Additional Points--NEP Program
For a facility that has an HPRI code of 3, does the facility discharge to one of the estuaries enrolled in the National Estuary Protection (NEP) program (see instructions) or the Chesapeake Bay?

		Code	Points
_X_	Yes	1	10
___	No	2	0

C. Additional Points--Great Lakes Area of Concern
for a facility that has an HPRI code of 5, does the facility discharge any of the pollutants of concern into one of the Great Lakes' 31 areas of concern (see instructions)

		Code	Points
___	Yes	1	10
_X_	No	2	0

Code Number Checked: A |_3_| B |_1__| C |_2_|

Points Factor 6: A |_1_|_8_| + B |_1_|_0_| + C |_0_|_0_| = |_____28___| TOTAL

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NPDES Permit Rating Work Sheet

NPDES NO: |_V_|_A_|_0_|_0_|_0_|_4_|_0_|_4_|_9_|

SCORE SUMMARY

Factor	Description	Total Points
1	Toxic Pollutant Potential	___5____
2	Flow/Stream flow Volume	___30____
3	Conventional Pollutants	___10____
4	Public Health Impacts	____0____
5	Water Quality Factors	__ 20____
6	Proximity to Near Coastal Waters	___28____
	TOTAL (Factors 1-6)	____93____

S1. Is the total score equal to or greater than 80? _X__ Yes (Facility is a major) ___ No

S2. If the answer to the above question is no, would you like this facility to be discretionary major?
___ No
___ Yes (add 500 points to the above score and provide reason below:

Reason:

_____

_____

_____

_____

_____

NEW SCORE: ___93_____

OLD SCORE: ____98_____

___Debra L. Thompson_____
Permit Reviewer's Name

(__757_)___ 518_-_2162_____
Phone Number

____August 12, 2015_____
Date

ATTACHMENT 14

OTHER PERTINENT INFORMATION

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COMMONWEALTH of VIRGINIA

Marissa J. Levine, MD, MPH, FAAFP
State Health Commissioner

John J. Aulbach II, PE
Director, Office of Drinking Water

DEPARTMENT OF HEALTH
OFFICE OF DRINKING WATER
Southeast Virginia Field Office

830 Southampton Avenue
Suite 2058
Norfolk, VA 23510
Phone (757) 683-2000
Fax (757) 683-2007

DATE: JUN 2 2 2015

FROM: DBH Daniel B. Horne, PE
Engineering Field Director

RECEIVED – DEQ
JUN 2 6 2015
Tidewater Regional Office

TO: Ms. Debra L. Thompson
Environmental Specialist Senior
DEQ Tidewater Regional Office
5636 Southern Boulevard
Virginia Beach, VA 23462

CITY/COUNTY: Accomack County
APPLICANT:
PERMIT TYPE: VPDES
APPLICATION TYPE: Re-Issuance
PROJECT: Tyson Farms, Inc. Temperanceville Facility
SUBJECT: Review response for DEQ's permit application #VA0004049

Our office has reviewed the application for discharge of processing, rendering, sanitary, hatchery and truck service center treated wastewater.

No public raw water intakes in Virginia were found downstream or upstream from the discharge point that would be impacted.

pc: VDH, ODW – Central Office
Accomack Health Department
Tyson Farms Inc.

R:\DIST21\Accomack\DEQ Permits\2015\Tyson Farms VPDES.docx

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COMMONWEALTH of VIRGINIA

Department of Health
DIVISION OF SHELLFISH SANITATION
109 Governor Street, Room 614-B
Richmond, VA 23219

Ph: 804-864-7487
Fax: 804-864-7481

MEMORANDUM

DATE: 8/14/2015

TO: Debra L. Thompson
Department of Environmental Quality

FROM: B. Keith Skiles, MPH, Director
Division of Shellfish Sanitation

SUBJECT: Tyson Farms, Inc.

City / County: Accomack

Waterbody: Sandy Bottom Branch / Holdens Creek

Type: ☑ VPDES ☐ VMRC ☐ VPA ☐ VWP ☐ JPA ☐ Other:

Application / Permit Number: VA0004049

☐ The project will not affect shellfish growing waters.

☐ The project is located in or adjacent to approved shellfish growing waters, however, the activity as described will not require a change in classification.

☑ The project is located in or adjacent to condemned shellfish growing waters and the activity, as described, will not cause an increase in the size or type of the existing closure.

☐ The project will affect condemned shellfish waters and will not cause an increase in the size of the total condemnation. However, a prohibited area (an area from which shellfish relay to approved waters for self-purification is not allowed) will be required within a portion of the currently condemned area. See comments.

☐ A buffer zone (including a prohibited area) has been previously established in the vicinity of this discharge, however, the closure will have to be revised. Map attached.

☐ This project will affect approved shellfish waters. If this discharge is approved, a buffer zone (including a prohibited area) will be established in the vicinity of the discharge. Map attached.

☐ Other.

ADDITIONAL COMMENTS:

Area #: 75

eta

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Thompson, Debra (DEQ)

From: Redinger, David [david.redinger@tyson.com]
Sent: Wednesday, July 08, 2015 3:12 PM
To: Thompson, Debra (DEQ)
Subject: RE: Sanitary Flow Information VPDES Permit No VA0004049 Tyson Farms, Inc

There is an increase .. we have about 200 more employees than we did in 2009. I would say it probably isn't a 9000 gallon increase but we have a better understanding of average usage

From: Thompson, Debra (DEQ) [mailto:Debra.Thompson@deq.virginia.gov]
Sent: Wednesday, July 08, 2015 3:04 PM
To: Redinger, David
Subject: RE: Sanitary Flow Information VPDES Permit No VA0004049 Tyson Farms, Inc

Thanks....Is it correct to say that there is a slight increase in sanitary flow from the previous application ? Approx 9000 gal?

2015 = 0.02mgd
2009 = 0.11mgd

Deb

From: Redinger, David [mailto:david.redinger@tyson.com]
Sent: Wednesday, July 08, 2015 2:57 PM
To: Thompson, Debra (DEQ)
Subject: RE: Sanitary Flow Information VPDES Permit No VA0004049 Tyson Farms, Inc

2.5 MGD

From: Thompson, Debra (DEQ) [mailto:Debra.Thompson@deq.virginia.gov]
Sent: Wednesday, July 08, 2015 2:56 PM
To: Redinger, David
Subject: RE: Sanitary Flow Information VPDES Permit No VA0004049 Tyson Farms, Inc

Dave what is the hydraulic capacity of the plant....do I remember correctly as it being 3 MGD from the upgrade information?

From: Redinger, David [mailto:david.redinger@tyson.com]
Sent: Wednesday, July 08, 2015 2:34 PM
To: Thompson, Debra (DEQ)
Subject: RE: Sanitary Flow Information VPDES Permit No VA0004049 Tyson Farms, Inc

Deb,

The average sanitary flow is .02 MGD for the complex with 0.015 coming from processing, 0.002MGD from the hatchery, 0.003 from RVAF. There is no design flow but the maximum flow with existing pumps and piping would be about 0.05MGD.

From: Thompson, Debra (DEQ) [mailto:Debra.Thompson@deq.virginia.gov]
Sent: Wednesday, July 08, 2015 1:39 PM

13-0

To: Redinger, David
Subject: Sanitary Flow Information VPDES Permit No VA0004049 Tyson Farms, Inc

Hi Dave, I am just now beginning to look at the application. Sanitary flow has always been an elusive component as it is a "trace" amount in the scheme of things. Trying to put some numbers together for Va Dept of Health. Here is what is in our file regarding sanitary flow....

The 2009 application had a line drawing that listed sanitary flow as follows:
0.03 MGD from the Live Receiving area,
0.001 MGD from the Hatchery,
0.001 MGD from the Rendering Facility
For a total of 0.032 MGD.

Was this a design flow, maximum flow, etc. for sanitary input? Not thinking there is a design flow reference to sanitary, but wanted to ask the question. Is there a design flow for sanitary?
The 2009 Form 2C lists an average flow for Sanitary Waste of 0.011 MGD.

The 2015 application has a line drawing that lists Sanitary flow at 0.01 MGD, and Form 2C lists an average flow for Sanitary Waste of 0.02 MGD.

Is the sanitary waste component of the effluent an increase or decrease from 2009?

Thanks, Deb

Debra L. Thompson
Environmental Specialist II
VA Department of Environmental Quality
5636 Southern Boulevard
Virginia Beach, VA 23462
(757) 518-2162 phone

EMAIL ADDRESS:
debra.thompson@deq.virginia.gov
Office Info: http://www.deq.virginia.gov/regions/tidewater.html

This email and any files transmitted with it are confidential and intended solely for the use of the addressee. If you are not the intended addressee, then you have received this email in error and any use,

13-9

Thompson, Debra (DEQ)

From: Redinger, David [david.redinger@tyson.com]
Sent: Wednesday, July 08, 2015 2:34 PM
To: Thompson, Debra (DEQ)
Subject: RE: Sanitary Flow Information VPDES Permit No VA0004049 Tyson Farms, Inc

Deb,

The average sanitary flow is .02 MGD for the complex with 0.015 coming from processing, 0.002MGD from the hatchery, 0.003 from RVAF. There is no design flow but the maximum flow with existing pumps and piping would be about 0.05MGD.

Live Kill Weight (LWK) for 2014 Annual 310,716,563 lbs

From: Thompson, Debra (DEQ) [mailto:Debra.Thompson@deq.virginia.gov]
Sent: Wednesday, July 08, 2015 1:39 PM
To: Redinger, David
Subject: Sanitary Flow Information VPDES Permit No VA0004049 Tyson Farms, Inc

Hi Dave, I am just now beginning to look at the application. Sanitary flow has always been an elusive component as it is a "trace" amount in the scheme of things. Trying to put some numbers together for Va Dept of Health. Here is what is in our file regarding sanitary flow….

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For a total of 0.032 MGD.

Was this a design flow, maximum flow, etc. for sanitary input? Not thinking there is a design flow reference to sanitary, but wanted to ask the question. Is there a design flow for sanitary?
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Is the sanitary waste component of the effluent an increase or decrease from 2009?

Thanks, Deb

Debra L. Thompson
Environmental Specialist II
VA Department of Environmental Quality
5636 Southern Boulevard
Virginia Beach, VA 23462
(757) 518-2162 phone

EMAIL ADDRESS:
debra.thompson@deq.virginia.gov
Office Info: http://www.deq.virginia.gov/regions/tidewater.html

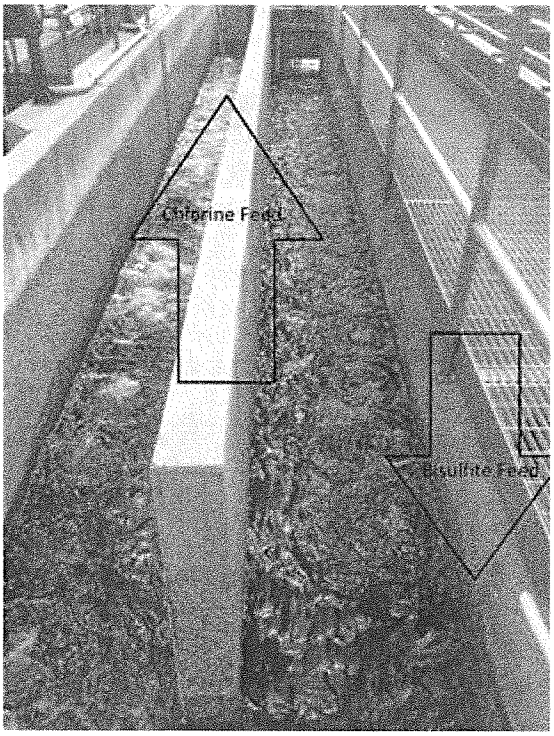
13-10 Use of Breakpt Cl2 during upset

Thompson, Debra (DEQ)

From: Redinger, David [david.redinger@tyson.com]
Sent: Monday, September 28, 2015 11:58 AM
To: Thompson, Debra (DEQ)
Subject: RE: Some questions about Breakpoint chlorination process/procedure

The process of breakpoint chlorination uses chlorine at a rate of 10 (approx.)parts chlorine for every part of ammonia to be destroyed. We add sodium hypochlorite at a rate determined by the amount of ammonia incoming. For example, if ammonia is 20mg/l, we would dose at approximately 200 mg/l of chlorine. We would measure "free chlorine" just prior to dechlorinating with sodium bisulfite. Targeting a 1mg/l free chlorine residual, we would increase or decrease the chlorine feed to maintain. The sodium bisulfite feed is based on this free chlorine residual.

The chlorine (sodium hypochlorite solution) is added just after the UV in the old chambers that used to contain the chlorine gas and sulfur dioxide feeds. The bisulfite feed is in the last pass of the old chamber. I have attached a picture to clarify.



During this process incoming nh3 is measured in combination with free chlorine residual, total chlorine residual after dechlorination, dissolved oxygen after dechlorination, pH and nh3 after dechlorination. Depending on the stability of the incoming ammonia and the resulting need to make changes to the dosage rates the testing would be done at least every 4 hours but as soon as each 30 minutes with total chlorine residual after dechlorination and dissolved oxygen after dechlorination.

David

From: Thompson, Debra (DEQ) [mailto:Debra.Thompson@deq.virginia.gov]
Sent: Friday, September 25, 2015 11:38 AM
To: Redinger, David
Subject: Some questions about Breakpoint chlorination process/procedure

Hi Dave,
Thanks for the explanation yesterday regarding your actions during the upset conditions and how you are trying to figure out how to solve the problem and prevent it from occurring again; so now that I have thought about it, I have some questions ...

- Where and how often are you adding the chlorine?
- How much are you using and how can you tell when is enough?
- What procedure do you follow if you determine you have added too much? Elevated residuals?
- How often are you sampling to track the chlorine levels and to know when/if more is necessary?

Trying to revise the chlorine special condition to incorporate "breakpoint" chlorination activity and associated monitoring. Do not want to over monitor, yet I do believe the permit should address this activity....thoughts on my approach from a treatment works operations manager?

Thanks, Deb

Debra L. Thompson
Environmental Specialist II
VA Department of Environmental Quality
5636 Southern Boulevard
Virginia Beach, VA 23462
(757) 518-2162 phone

EMAIL ADDRESS:
debra.thompson@deq.virginia.gov
Office Info: http://www.deq.virginia.gov/regions/tidewater.html

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Tyson Farms, Inc
Nutrient Trading GP

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

General Permit No.: VAN050005
Effective Date: January 1, 2012

Expiration Date: December 31, 2016

GENERAL PERMIT FOR TOTAL NITROGEN AND TOTAL PHOSPHORUS DISCHARGES AND NUTRIENT TRADING IN THE CHESAPEAKE WATERSHED IN VIRGINIA

AUTHORIZATION TO DISCHARGE UNDER THE VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM AND THE VIRGINIA STATE WATER CONTROL LAW

In compliance with the provisions of the Clean Water Act, as amended, and pursuant to the State Water Control Law and regulations adopted pursuant thereto, owners of facilities holding a VPDES individual permit or owners of facilities that otherwise meet the definition of an existing facility, with total nitrogen and/or total phosphorus discharges to the Chesapeake Bay or its tributaries, are authorized to discharge to surface waters and exchange credits for total nitrogen and/or total phosphorus.

The authorized discharge shall be in accordance with the registration statement filed with DEQ, this cover page, Part I-Special Conditions Applicable to All Facilities, Part II-Special Conditions Applicable to New and Expanded Facilities, and Part III-Conditions Applicable to All VPDES Permits, as set forth herein.

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Part I
Special Conditions Applicable To All Facilities

A. Authorized activities.

1. Authorization to discharge for facilities required to register.

a. Every owner or operator of a facility required to submit a registration statement to the department by November 1, 2011, and thereafter upon the reissuance of this general permit, shall be authorized to discharge total nitrogen and total phosphorus subject to the requirements of this general permit upon the department's approval of the registration statement.

b. Any owner or operator of a facility required to submit a registration statement with the department at the time he makes application with the department for a new discharge or expansion that is subject to an offset or technology-based requirement in Part II of this general permit, shall be authorized to discharge total nitrogen and total phosphorus subject to the requirements of this general permit upon the department's approval of the registration statement.

c. Upon the department's approval of the registration statement, a facility will be included in the registration list maintained by the department.

2. Authorization to discharge for facilities not required to register. Any facility authorized by a Virginia Pollutant Discharge Elimination System permit and not required by this general permit to submit a registration statement shall be deemed to be authorized to discharge total nitrogen and total phosphorus under this general permit at the time it is issued. Owners or operators of facilities that are deemed to be permitted under this subsection shall have no obligation under this general permit prior to submitting a registration statement and securing coverage under this general permit based upon such registration statement.

3. Continuation of permit coverage.

a. Any owner authorized to discharge under this general permit and who submits a complete registration statement for the reissued general permit by November 1, 2016, in accordance with Part III A or who is not required to register in accordance with Part I A 2 is authorized to continue to discharge under the terms of this general permit until such time as the board either:

(1) Issues coverage to the owner under the reissued general permit, or

(2) Notifies the owner that coverage under the reissued permit is denied.

b. When the owner that was covered under the expiring or expired general permit has violated or is violating the conditions of that permit, the board may choose to do any or all of the following:

(1) Initiate enforcement action based upon the general permit that has been continued,

(2) Issue a notice of intent to deny coverage under the amended general permit if the general permit coverage is denied the owner would then be required to cease the activities authorized by the continued general permit or be subject to enforcement action for operating without a permit, or

(3) Take other actions authorized by the State Water Control Law.

B. Waste load allocations.

1. Waste load allocations allocated to permitted facilities pursuant to 9VAC25-720-50 C, 9VAC25-720-60 C, 9VAC25-720-70 C, 9VAC25-720-110 C, and 9VAC25-720-120 C of the Water Quality Management Planning Regulation, or applicable total maximum daily loads, or waste load allocations acquired by new and expanding facilities to offset new or increased delivered total nitrogen and delivered total phosphorus loads from a new discharge or expansion under Part II B of this general permit, and existing loads calculated from the permitted design capacity of expanding facilities not previously covered by this general permit, shall be incorporated into

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the registration list maintained by the department. The waste load allocations contained in this list shall be enforceable as annual mass load limits in this general permit. Credits shall not be generated by facilities whose mass loads are derived from permitted design capacities, or from facilities whose operations were previously authorized by a Virginia Pollution Abatement (VPA) permit that was issued before July 1, 2005.

2. Except as described in subdivisions 2 d and 2 e of this subsection, an owner or operator of two or more facilities covered by this general permit and located in the same tributary may apply for and receive an aggregated mass load limit for delivered total nitrogen and an aggregated mass load limit for delivered total phosphorus reflecting the total of the water quality-based total nitrogen and total phosphorus waste load allocations or permitted design capacities established for such facilities individually.

a. The permittee (and all of the individual facilities covered under a single registration) shall be deemed to be in compliance when the aggregate mass load discharged by the facilities is less than the aggregate load limit.

b. The permittee will be eligible to generate credits only if the aggregate mass load discharged by the facilities is less than the total of the waste load allocations assigned to any of the affected facilities in 9VAC25-720-50 C, 9VAC25-720-60 C, 9VAC25-720-70 C, 9VAC25-720-110 C and 9VAC25-720-120 C of the Water Quality Management Planning Regulation.

c. Credits shall not be generated by permittees whose aggregated mass load limit is derived entirely from permitted design capacities.

d. The aggregation of mass load limits shall not affect any requirement to comply with local water quality-based limitations.

e. Facilities whose operations were previously authorized by a Virginia Pollution Abatement (VPA) permit that was issued before July 1, 2005, cannot be aggregated with other facilities under common ownership or operation.

f. Operation under an aggregated mass load limit in accordance with this section shall not be deemed credit acquisition as described in Part I J 2 of this general permit.

3. An owner who consolidates two or more facilities located in the same tributary into a single regional facility may apply for and receive an aggregated mass load limit for delivered total nitrogen and an aggregated mass load limit for delivered total phosphorus, subject to the following conditions:

a. If all of the affected facilities have waste load allocations in 9VAC25-720-50 C, 9VAC25-720-60 C, 9VAC25-720-70 C, 9VAC25-720-110 C, and 9VAC25-720-120 C of the Water Quality Management Planning Regulation, the aggregate mass load limit shall be calculated by adding the waste load allocations of the affected facilities. The regional facility shall be eligible to generate credits.

b. If any, but not all, of the affected facilities has a waste load allocation in 9VAC25-720-50 C, 9VAC25-720-60 C, 9VAC25-720-70 C, 9VAC25-720-110 C, and 9VAC25-720-120 C of the Water Quality Management Planning Regulation, the aggregate mass load limit shall be calculated by adding:

(1) Waste load allocations of those facilities that have waste load allocations in 9VAC25-720-50 C, 9VAC25-720-60 C, 9VAC25-720-70 C, 9VAC25-720-110 C, and 9VAC25-720-120 C of the Water Quality Management Planning Regulation;

(2) Permitted design capacities assigned to affected industrial facilities; and

(3) Loads from affected sewage treatment works that do not have a waste load allocation in 9VAC25-720-50 C, 9VAC25-720-60 C, 9VAC25-720-70 C, 9VAC25-720-110 C, and 9VAC25-720-120 C of the Water Quality Management Planning Regulation, defined as the lesser of a previously calculated permitted design capacity, or the values calculated by the following formulae:

Nitrogen Load (lbs/day) = flow x 8.0 mg/l x 8.345 x 365 days/year

Phosphorus Load (lbs/day) = flow x 1.0 mg/l x 8.345 x 365 days/year

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Flows used in the preceding formulae shall be the design flow of the treatment works from which the affected facility currently discharges.

The regional facility shall be eligible to generate credits.

c. If none of the affected facilities have a waste load allocation in 9VAC25-720-50 C, 9VAC25-720-60 C, 9VAC25-720-70 C, 9VAC25-720-110 C, and 9VAC25-720-120 C of the Water Quality Management Planning Regulation, the aggregate mass load limit shall be calculated by adding the respective permitted design capacities for the affected facilities. The regional facility shall not be eligible to generate credits.

d. Facilities whose operations were previously authorized by a Virginia Pollution Abatement (VPA) permit that was issued before July 1, 2005, may be consolidated with other facilities under common ownership or operation, but their allocations cannot be transferred to the regional facility.

e. Facilities whose operations were previously authorized by a VPA permit that was issued before July 1, 2005, can become regional facilities, but they cannot receive additional allocations beyond those permitted in Part II B 1 d of this general permit.

4. Unless otherwise noted, the nitrogen and phosphorus waste load allocations assigned to permitted facilities are considered total loads including nutrients present in the intake water from the river, as applicable. On a case-by-case basis, an industrial discharger may demonstrate to the satisfaction of the board that a portion of the nutrient load originates in its intake water. This demonstration shall be consistent with the assumptions and methods used to derive the allocations through the Chesapeake Bay models. In these cases, the board may limit the permitted discharge to the net nutrient load portion of the assigned waste load allocation.

5. Bioavailability. Unless otherwise noted, the entire nitrogen and phosphorus waste load allocations assigned to permitted facilities are considered to be bioavailable to organisms in the receiving stream. On a case-by-case basis, a discharger may demonstrate to the satisfaction of the board that a portion of the nutrient load is not bioavailable; this demonstration shall not be based on the ability of the nutrient to resist degradation at the wastewater treatment plant, but instead, on the ability of the nutrient to resist degradation within a natural environment for the amount of time that it is expected to remain in the bay watershed. This demonstration shall also be consistent with the assumptions and methods used to derive the allocations through the Chesapeake Bay models. In these cases, the board may limit the permitted discharge to the bioavailable portion of the assigned waste load allocation.

C. Schedule of compliance.

1. The following schedule of compliance pertaining to the load allocations for total nitrogen and total phosphorus applies to the facilities listed in 9VAC25-820-80.

a. Compliance shall be achieved as soon as possible, but no later than the following dates, subject to any compliance plan-based adjustment by the board pursuant to subdivision 1 b of this subsection, for each parameter:

Tributary	Parameter	Final Effluent Limits Effective Date
James River	Nitrogen	January 1, 2017
York River	Phosphorus	January 1, 2016

b. Following submission of compliance plans and compliance plan updates required by 9VAC25-820-40, the board shall reevaluate the schedule of compliance in subdivision 1 a of this subsection, taking into account the information in the compliance plans and the factors in § 62.1-44.19:14 C 2 of the Code of Virginia. When warranted based on such information and factors, the board shall adjust the schedule in subdivision 1 a of this subsection as appropriate by modification or reissuance of this general permit.

2. The registration list shall contain individual dates for compliance (as defined in Part I J 1 a-b of this general permit) for dischargers, as follows:

a. Facilities listed in 9VAC25-820-80 will have individual dates for compliance based on their respective compliance plans, that may be earlier than the basin schedule listed in subdivision 1 of this subsection.

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b. Facilities listed in 9VAC25-820-70 that waive their compliance schedules in accordance with 9VAC25-820-40 A 2 b shall have an individual compliance date of January 1, 2012.

c. Upon completion of the projects contained in their compliance plans, facilities listed in 9VAC25-820-80 may receive a revised individual compliance date of January 1 for the calendar year immediately following the year in which a Certificate to Operate was issued for the capital projects, but not later than the basin schedule listed in subdivision 1 of this subsection.

d. New and expanded facilities will have individual dates for compliance corresponding to the date that coverage under this general permit was extended to the facility.

3. The 39 significant dischargers in the James River Basin shall meet aggregate discharged waste load allocations of 8,968,864 lbs/yr TN and 545,558 lbs/yr TP by January 1, 2023.

D. Annual update of compliance plan. Every owner or operator of a facility required to submit a registration statement shall either individually or through the Virginia Nutrient Credit Exchange Association submit updated compliance plans to the department no later than February 1 of each year. The compliance plans shall contain sufficient information to document a plan for the facility to achieve and maintain compliance with applicable total nitrogen and phosphorus individual waste load allocations on the registration list and aggregate waste load allocations in Part I C 3. Compliance plans for facilities that were required to submit a registration statement with the department under Part I G 1 a may rely on the acquisition of point source credits in accordance with Part I J of this general permit, but not the acquisition of credits through payments into the Water Quality Improvement Fund, to achieve compliance with the individual and combined waste load allocations in each tributary. Compliance plans for expansions or new discharges for facilities that are required to submit a registration statement with the department under Part I G 1 b and c may rely on the acquisition of allocation in accordance with Part II B of this general permit to achieve compliance with the individual and combined waste load allocations in each tributary.

E. Monitoring requirements.

1. Discharges shall be monitored by the permittee during weekdays as specified below unless the department determines that weekday only sampling results in a non-representative load. Weekend monitoring and/or alternative monthly load calculations to address production schedules or seasonal flows shall be submitted to the department for review and approval on a case-by-case basis. Facilities that exhibit instantaneous discharge flows that vary from the daily average discharge flow by less than 10% may submit a proposal to the department to use an alternative sample type; such proposals shall be reviewed and approved by the department on a case-by-case basis.

Parameter	Sample Type and Collection Frequency			
STP design flow	≥20.0 MGD	1.0-19.999 MGD	0.040-0.999 MGD	< 0.040 MGD
Effluent TN load limit for industrial facilities		>100,000 lb/yr	487-99,999 lb/yr	< 487 lb/yr
Effluent TP load limit for industrial facilities		>10,000 lb/yr	37-9,999 lb/yr	< 37 lb/yr
Flow	Totalizing, Indicating and Recording			1/Day, see individual VPDES permit for sample type
Nitrogen Compounds (Total Nitrogen = TKN + NO_2- (as N) + NO_3- (as N))	24 HC 3 Days/Week	24 HC 1/Week	8 HC 2/Month, > 7 days apart	1/Month Grab
Total Phosphorus	24 HC 3 Days/Week	24 HC 1/Week	8 HC 2/Month, > 7 days apart	1/Month Grab

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2. Monitoring for compliance with effluent limitations shall be performed in a manner identical to that used to determine compliance with effluent limitations established in the individual VPDES permit. Monitoring or sampling shall be conducted according to analytical laboratory methods approved under 40 CFR Part 136, unless other test or sample collection procedures have been requested by the permittee and approved by the department in writing. All analysis for compliance with effluent limitations shall be in accordance with 1VAC30-45, Certification for Noncommercial Environmental Laboratories, or 1VAC30-46, Accreditation for Commercial Environmental Laboratories. Monitoring may be performed by the permittee at frequencies more stringent than listed above; however, the permittee shall report all results of such monitoring.

3. Loading values greater than or equal to 10 pounds reported in accordance with Part I E and F of this general permit shall be calculated and reported to the nearest pound without regard to mathematical rules of precision. Loading values of less than 10 pounds reported in accordance with Part I E and F of this general permit shall be calculated and reported to at least two significant digits with the exception that all complete calendar year annual loads shall be reported to the nearest pound.

4. Data shall be reported on a form provided by the department, by the same date each month as is required by the facility's individual permit. The total monthly load shall be calculated in accordance with the following formula:

$$ML = \left(\frac{\sum DL}{s} \right) \times d$$

where:

ML = total monthly load (lb/mo) = average daily load for the calendar month multiplied by the number of days of the calendar month on which a discharge occurred

DL = daily load = daily concentration (expressed as mg/l to the nearest 0.01 mg/l) multiplied by the flow volume of effluent discharged during the 24-hour period (expressed as MGD to at least the nearest 0.01 MGD and in no case less than two significant digits), multiplied by 8.345. Daily loads greater than or equal to 10 pounds may be rounded to the nearest whole number to convert to pounds per day (lbs/day). Daily loads less than or equal to 10 pounds may be rounded to no fewer than two significant figures.

s = number of days in the calendar month in which a sample was collected and analyzed

d = number of discharge days in the calendar month

For total phosphorus, all daily concentration data below the quantification level (QL) for the analytical method used should be treated as half the QL. All daily concentration data equal to or above the QL for the analytical method used shall be treated as it is reported. If all data are below the QL, then the average shall be reported as half the QL.

For total nitrogen (TN), if none of the daily concentration data for the respective species (i.e., TKN, nitrates/nitrites) are equal to or above the QL for the respective analytical methods used, the daily TN concentration value reported shall equal one half of the largest QL used for the respective species. If one of the data is equal to or above the QL, the daily TN concentration value shall be treated as that data point as reported. If more than one of the data is above the QL, the daily TN concentration value shall equal the sum of the data points as reported.

The total year-to-date mass load shall be calculated in accordance with the following formula:

$$AL_{YTD} = \sum_{1\ Jan\ \ present} ML$$

where:

AL-YTD = calendar year-to-date annual load (lb/yr)

ML = total monthly load (lb/mo)

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5. The department may authorize a chemical usage evaluation as an alternative means of determining nutrient loading for outfalls where the only source of nutrients is those found in the surface water intake and chemical additives used by the facility. Such an evaluation shall be submitted to the department for review and approval on a case-by-case basis. Implementation of approved chemical usage evaluations shall satisfy the requirements specified under Part I E 1 and 2.

F. Annual reporting.

1. Annually, on or before February 1, the permittee shall either individually or through the Virginia Nutrient Credit Exchange Association file a report with the department, using a reporting form supplied by the department. The report shall identify:

a. The annual mass load of total nitrogen and the annual mass load of total phosphorus discharged by each of its permitted facilities during the previous calendar year;

b. The delivered total nitrogen load and delivered total phosphorus load discharged by each of its permitted facilities during the previous year; and

c. The number of total nitrogen and total phosphorus credits for the previous calendar year to be acquired or eligible for exchange by the permittee.

The total annual mass load shall be calculated in accordance with the following formula:

$$AL = \sum_{(Jan-Dec)} ML$$

where:
AL = calendar year annual load (lb/yr)

ML = total monthly load (lb/mo)

G. Requirement to register; exclusions.

1. The following owners or operators are required to register for coverage under this general permit:

a. Every owner or operator of an existing facility authorized by a Virginia Pollutant Discharge Elimination System permit to discharge 100,000 gallons or more per day from a sewage treatment work, or an equivalent load from an industrial facility, directly into tidal waters, or 500,000 gallons or more per day from a sewage treatment work, or an equivalent load from an industrial facility, directly into nontidal waters, shall submit a registration statement to the department by November 1, 2011, and thereafter upon the reissuance of this general permit in accordance with Part III B. The conditions of this general permit will apply to such owner and operator upon approval of a registration statement.

b. Any owner or operator of a facility authorized by a Virginia Pollutant Discharge Elimination System permit to discharge 40,000 gallons or more per day from a sewage treatment work, or an equivalent load from an industrial facility, directly into tidal or nontidal waters shall submit a registration statement with the department at the time he makes application for an individual permit with the department for a new discharge or expansion that is subject to an offset requirement in Part II of this general permit or technology-based requirement in 9VAC25-40-70, and thereafter upon the reissuance of this general permit in accordance with Part III B. The conditions of this general permit will apply to such owner or operator beginning on the start of the calendar year immediately following approval of a registration statement and issuance or modification of the individual permit.

c. Any owner or operator of a facility treating domestic sewage authorized by a Virginia Pollutant Discharge Elimination System permit with a discharge greater than 1,000 gallons per day up to and including 39,999 gallons per day that has not commenced the discharge of pollutants prior to January 1, 2011, shall submit a registration statement with the department at the time he makes application for an individual permit with the department or prior to commencing a discharge, whichever occurs first, and thereafter upon the reissuance of this general permit in accordance with Part III B.

2. All other categories of discharges are excluded from registration under this general permit.

H. Registration statement.

1. The registration statement shall contain the following information:

a. Name, mailing address and telephone number, e-mail address and fax number of the owner (and facility operator, if different from the owner) applying for permit coverage;

b. Name (or other identifier), address, city or county, contact name, phone number, e-mail address and fax number for the facility for which the registration statement is submitted;

c. VPDES permit numbers for all permits assigned to the facility, or pursuant to which the discharge is authorized;

d. If applying for an aggregated waste load allocation in accordance with Part I B 2 of this permit, list all affected facilities and the VPDES permit numbers assigned to these facilities;

e. For new and expanded facilities, a plan to offset new or increased delivered total nitrogen and delivered total phosphorus loads, including the amount of waste load allocation acquired. Waste load allocations sufficient to offset projected nutrient loads must be provided for period of at least five years; and

f. For existing facilities, the amount of a facility's waste load allocation transferred to or from another facility to offset new or increased delivered total nitrogen and delivered total phosphorus loads from a new discharge or expansion.

2. The registration statement shall be submitted to the DEQ Central Office, Office of Water Permits and Compliance Assistance.

3. An amended registration statement shall be submitted upon the acquisition or transfer of a facility's waste load allocation to offset new or increased delivered total nitrogen and delivered total phosphorus loads from a new discharge or expansion.

I. Public notice for registration statements proposing modifications or incorporations of new waste load allocations or delivery factors.

1. All public notices issued pursuant to a proposed modification or incorporation of a (i) new waste load allocation to offset new or increased delivered total nitrogen and delivered total phosphorus loads from a new discharge or expansion, or (ii) delivery factor, shall be published once a week for two consecutive weeks in a major local newspaper of general circulation serving the locality where the facility is located informing the public that the facility intends to apply for coverage under this general permit. At a minimum, the notice shall include:

a. A statement of the owner or operator's intent to register for coverage under this general permit;

b. A brief description of the facility and its location;

c. The amount of waste load allocation that will be acquired or transferred if applicable;

d. The delivery factor for a new discharge or expansion;

e. A statement that the purpose of the public participation is to acquaint the public with the technical aspects of the facility and how the standards and the requirements of this chapter will be met, to identify issues of concern, to facilitate communication and to establish a dialogue between the owner or operator and persons who may be affected by the facility;

f. An announcement of a 30-day comment period and the name, telephone number, and address of the owner's or operator's representative who can be contacted by the interested persons to answer questions;

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g. The name, telephone number, and address of the DEQ representative who can be contacted by the interested persons to answer questions, or where comments shall be sent; and

h. The location where copies of the documentation to be submitted to the department in support of this general permit notification and any supporting documents can be viewed and copied.

2. The owner or operator shall place a copy of the documentation and support documents in a location accessible to the public in the vicinity of the proposed facility.

3. The public shall be provided 30 days to comment on the technical and the regulatory aspects of the proposal. The comment period will begin on the date the notice is published in the local newspaper.

J. Compliance with waste load allocations.

1. Methods of compliance. The permitted facility shall comply with its waste load allocation contained in the registration list maintained by the department. The permitted facility shall be in compliance with its waste load allocation if:

a. The annual mass load is less than or equal to the applicable waste load allocation assigned to the facility in this general permit (or permitted design capacity for expanded facilities without allocations);

b. The permitted facility acquires sufficient point source nitrogen or phosphorus credits in accordance with subdivision 2 of this subsection; provided, however, that the acquisition of nitrogen or phosphorus credits pursuant to this section shall not alter or otherwise affect the individual waste load allocations for each permitted facility; or

c. In the event it is unable to meet the individual waste load allocation pursuant to subdivision 1 a or 1 b of this subsection, the permitted facility acquires sufficient nitrogen or phosphorus credits through payments made into the Water Quality Improvement Fund pursuant to subdivision 3 of this subsection; provided, however, that the acquisition of nitrogen or phosphorus credits pursuant to this section shall not alter or otherwise affect the individual waste load allocations for each permitted facility.

2. Credit acquisition from permitted facilities. A permittee may acquire point source nitrogen credits or point source phosphorus credits from one or more permitted facilities with waste load allocations in 9VAC25-720-50 C, 9VAC25-720-60 C, 9VAC25-720-70 C, 9VAC25-720-110 C and 9VAC25-720-120 C of the Water Quality Management Planning Regulation, including the Blue Plains wastewater treatment facility operated by the District of Columbia Water and Sewer Authority, only if:

a. The credits are generated and applied to a compliance obligation in the same calendar year;

b. The credits are generated by one or more permitted facilities in the same tributary, except that permitted facilities in the Eastern Shore basin may also acquire credits from permitted facilities in the Potomac and Rappahannock tributaries. Eastern shore facilities may acquire credits from the Potomac tributary at a trading ratio of 1:1. A trading ratio of 1.3:1 shall apply to the acquisition of credits from the Rappahannock tributary by an Eastern Shore facility;
c. The exchange or acquisition of credits does not affect any requirement to comply with local water quality-based limitations as determined by the board;

d. The credits are acquired no later than June 1 immediately following the calendar year in which the credits are applied;

e. The credits are generated by a facility that has been constructed, and has discharged from treatment works whose design flow or equivalent industrial activity is the basis for the facility's waste load allocations (until a facility is constructed and has commenced operation, such credits are held, and may be sold, by the Water Quality Improvement Fund; and

f. No later than June 1 immediately following the calendar year in which the credits are applied, the permittee certifies on a credit exchange notification form supplied by the department that he has acquired sufficient credits to satisfy his compliance obligations. The permittee shall comply with the terms and conditions contained in the credit exchange notification form submitted to the department.

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3. Credit acquisitions from the Water Quality Improvement Fund. Until such time as the board finds that no allocations are reasonably available in an individual tributary, permittees that cannot meet their total nitrogen or total phosphorus effluent limit may acquire nitrogen or phosphorus credits through payments made into the Virginia Water Quality Improvement Fund established in § 10.1-2128 of the Code of Virginia only if, no later than June 1 immediately following the calendar year in which the credits are to be applied, the permittee certifies on a form supplied by the department that he has diligently sought, but has been unable to acquire, sufficient credits to satisfy his compliance obligations through the acquisition of point source nitrogen or phosphorus credits with other permitted facilities, and that he has acquired sufficient credits to satisfy his compliance obligations through one or more payments made in accordance with the terms of this general permit. Such certification may include, but not be limited to, providing a record of solicitation or demonstration that point source allocations are not available for sale in the tributary in which the permittee is located. Payments to the Water Quality Improvement Fund shall be in the amount of $6.04 for each pound of nitrogen and $15.08 for each pound of phosphorus and shall be subject to the following requirements:

a. The credits are generated and applied to a compliance obligation in the same calendar year,

b. The credits are generated in the same tributary, except that permitted facilities in the Eastern Shore basin may also acquire credits from the Potomac and Rappahannock tributaries. Eastern shore facilities may acquire credits from the Potomac tributary at a trading ratio of 1:1. A trading ratio of 1.3:1 shall apply to the acquisition of credits from the Rappahannock tributary by an Eastern Shore facility.

c. The acquisition of credits does not affect any requirement to comply with local water quality-based limitations, as determined by the board.

4. This general permit neither requires, nor prohibits a municipality or regional sewerage authority's development and implementation of trading programs among industrial users, which are consistent with the pretreatment regulatory requirements at 40 CFR Part 403 and the municipality's or authority's individual VPDES permit.

Part II
Special Conditions Applicable To New And Expanded Facilities

A. Offsetting mass loads discharged by new and expanded facilities.

1. An owner or operator of a new or expanded facility shall comply with the applicable requirements of this section as a condition of the facility's coverage under this general permit.

a. An owner or operator of a facility authorized by a Virginia Pollutant Discharge Elimination System permit first issued before July 1, 2005, that expands his facility to discharge 40,000 gallons or more per day, or an equivalent load, shall demonstrate to the department that he has acquired waste load allocations sufficient to offset any increase in his delivered total nitrogen and delivered total phosphorus loads resulting from any expansion beyond his permitted capacity as of July 1, 2005.

b. An owner or operator of a facility authorized by a Virginia Pollutant Discharge Elimination System permit first issued on or after July 1, 2005, to discharge 40,000 gallons or more per day, or an equivalent load, shall demonstrate to the department that he has acquired waste load allocations sufficient to offset his delivered total nitrogen and delivered total phosphorus loads.

c. An owner or operator of a facility treating domestic sewage authorized by a Virginia Pollutant Discharge Elimination System permit with a discharge greater than 1,000 gallons per day up to and including 39,999 gallons per day that has not commenced the discharge of pollutants prior to January 1, 2011, shall demonstrate to the department that he has acquired waste load allocations sufficient to offset his delivered total nitrogen and delivered phosphorus loads prior to commencing the discharge, except when the facility is for short-term temporary use only or when treatment of domestic sewage is not the primary purpose of the facility.

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2. Offset calculations shall address the proposed discharge that exceeds:

a. The applicable waste load allocation assigned to the facility in this general permit, for expanding significant dischargers with a waste load allocation listed in 9VAC25-720-50 C, 9VAC25-720-60 C, 9VAC25-720-70 C, 9VAC25-720-110 C, and 9VAC25-720-120 C of the Water Quality Management Planning Regulation;

b. The permitted design capacity, for all other expanding dischargers; and

c. Zero, for facilities with a new discharge.

3. An owner or operator of multiple facilities located in the same tributary, and assigned an aggregate mass load limit in accordance with Part I B 2 of this general permit, that undertakes construction of new or expanded facilities, shall be required to acquire waste load allocations sufficient to offset any increase in delivered total nitrogen and delivered total phosphorus loads resulting from any expansion beyond the aggregate mass load limit assigned these facilities.

B. Acquisition of waste load allocations. Waste load allocations required by this section to offset new or increased delivered total nitrogen and delivered total phosphorus loads shall be acquired in accordance with this section.

1. Such allocations may be acquired from one or a combination of the following:

a. Acquisition of all or a portion of the waste load allocations from one or more permitted facilities, based on delivered pounds by the respective trading parties as listed by the department;
b. Acquisition of nonpoint source load allocations, using a trading ratio of two pounds reduced for every pound to be discharged, through the use of best management practices that are:

(1) Acquired through a public or private entity acting on behalf of the land owner;

(2) Calculated using best management practices efficiency rates and attenuation rates, as established by the latest science and relevant technical information, and approved by the board;

(3) Based on appropriate delivery factors, as established by the latest science and relevant technical information, and approved by the board;

(4) Demonstrated to have achieved reductions beyond those already required by or funded under federal or state law, or by the Virginia tributaries strategies plans;

(5) Included as conditions of the facility's individual Virginia Pollutant Discharge Elimination System permit; and

(6) In the case of allocations generated by land use conversions and urban source reduction controls (BMPs), beyond those in place as of July 1, 2005.

c. Until such time as the board finds that no allocations are reasonably available in an individual tributary, acquisition of allocations through payments made into the Virginia Water Quality Improvement Fund established in § 10.1-2128 of the Code of Virginia; or

d. Acquisition of allocations through such other means as may be approved by the department on a case-by-case basis. This includes allocations granted by the board to an owner or operator of a facility that is authorized by a VPA permit to land apply domestic sewage if:

(1) The VPA permit was issued before July 1, 2005;

(2) The allocation does not exceed the facility's permitted design capacity as of July 1, 2005;

(3) The waste treated by the facility that is covered under the VPA permit will be treated and discharged pursuant to a VPDES permit for a new discharge; and

(4) The owner or operator installs state-of-the-art nutrient removal technology at such a facility.

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2. Acquisition of allocations is subject to the following conditions:

a. The allocations shall be generated and applied to an offset obligation in the same calendar year;

b. The allocations shall be generated in the same tributary;

c. Such acquisition does not affect any requirement to comply with local water quality-based limitations, as determined by the board;

d. The allocations are authenticated (i.e., verified to have been generated) by the permittee as required by the facility's individual Virginia Pollutant Discharge Elimination permit, utilizing procedures approved by the board, no later than February 1 immediately following the calendar year in which the allocations are applied; and

e. If obtained from a permitted point source, the allocations shall be generated by a facility that has been constructed, and has discharged from treatment works whose design flow or equivalent industrial activity is the basis for the facility's waste load allocations.

3. Priority of options. The board shall give priority to allocations acquired in accordance with subdivisions 1 a and 1 b of this subsection. The board shall approve allocations acquired in accordance with subdivisions 1 c and 1 d of this subsection only after the owner or operator has demonstrated that he has made a good faith effort to acquire sufficient allocations in accordance with subdivisions 1 a and 1 b of this subsection, and that such allocations are not reasonably available taking into account timing, cost and other relevant factors. Such demonstration may include, but not be limited to, providing a record of solicitation, or other demonstration that point source allocations or nonpoint source allocations are not available for sale in the tributary in which the permittee is located.

4. Annual allocation acquisitions from the Water Quality Improvement Fund. The cost for each pound of nitrogen and each pound of phosphorus shall be determined at the time payment is made to the WQIF, based on the higher of (i) the estimated cost of achieving a reduction of one pound of nitrogen or phosphorus at the facility that is securing the allocation, or comparable facility, for each pound of allocation acquired; or (ii) the average cost, as determined by the Department of Conservation and Recreation on an annual basis, of reducing two pounds of nitrogen or phosphorus from nonpoint sources in the same tributary for each pound of allocation acquired.

Part III

Conditions Applicable To All VPDES Permits

A. Duty to comply. The permittee must comply with all conditions of the permit. Any permit noncompliance constitutes a violation of the law and the Clean Water Act, except that noncompliance with certain provisions of the permit may constitute a violation of the law but not the Clean Water Act. Permit noncompliance is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

B. Duty to register for reissued general permit. If the permittee wishes to continue an activity regulated by the general permit after its expiration date, the permittee must register for coverage under the new general permit, when it is reissued by the department.

C. Need to halt or reduce activity not a defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.

D. Duty to mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of the permit that has a reasonable likelihood of adversely affecting human health or the environment.

E. Proper operation and maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of the permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

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F. Permit actions. Permits may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

G. Property rights. Permits do not convey any property rights of any sort, or any exclusive privilege.

H. Duty to provide information. The permittee shall furnish to the department, within a reasonable time, any information that the board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. The board may require the permittee to furnish, upon request, such plans, specifications, and other pertinent information as may be necessary to determine the effect of the wastes from his discharge on the quality of state waters, or such other information as may be necessary to accomplish the purposes of the law. The permittee shall also furnish to the department upon request, copies of records required to be kept by the permit, pertaining to activities related to the permitted facility.

I. Inspection and entry. The permittee shall allow the director, or an authorized representative (including an authorized contractor acting as a representative of the administrator), upon presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;

3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under the permit; and

4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act and the law, any substances or parameters at any location.

J. Monitoring and records.

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

2. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the application for the permit, for a period of at least three years from the date of the sample, measurement, report or application. This period of retention shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or regarding control standards applicable to the permittee, or as requested by the board.

3. Records of monitoring information shall include:

a. The date, exact place, and time of sampling or measurements;

b. The individual(s) who performed the sampling or measurements;

c. The date(s) analyses were performed;

d. The individual(s) who performed the analyses;

e. The analytical techniques or methods used; and

f. The results of such analyses.

4. Monitoring results must be conducted according to test procedures approved under 40 CFR Part 136, or alternative EPA-approved methods, unless other test procedures have been specified in the permit.

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K. Signatory requirements. All applications, reports, or information submitted to the department shall be signed and certified as required by 9VAC25-31-110.

L. Reporting requirements.

1. The permittee shall give notice to the department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 9VAC25-31-180 A; or

b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in the permit, nor to notification requirements under 9VAC25-31-200 A 1.

2. The permittee shall give advance notice to the department of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements.

3. Permits are not transferable to any person except after notice to the department. The board may require modification or revocation and reissuance of permits to change the name of the permittee and incorporate such other requirements as may be necessary under the law or the Clean Water Act.

4. Monitoring results shall be reported at the intervals specified in the permit.

a. Monitoring results must be reported on a Discharge Monitoring Report (DMR).

b. If the permittee monitors any pollutant specifically addressed by the permit more frequently than required by the permit using test procedures approved under 40 CFR Part 136 , or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR specified by the department.

c. Calculations for all limitations that require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in the permit.

5. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than 14 days following each schedule date.

6. If any unusual or extraordinary discharge including a bypass or upset should occur from a facility and such discharge enters or could be expected to enter state waters, the owner shall promptly notify, in no case later than 24 hours, the department by telephone after the discovery of such discharge. This notification shall provide all available details of the incident, including any adverse affects on aquatic life and the known number of fish killed. The permittee shall reduce the report to writing and shall submit it to the department within five days of discovery of the discharge in accordance with subdivision 7 a of this subsection. Unusual and extraordinary discharges include but are not limited to any discharge resulting from:

a. Unusual spillage of materials resulting directly or indirectly from processing operations;
b. Breakdown of processing or accessory equipment;

c. Failure or taking out of service of the treatment work or auxiliary facilities (such as sewer lines or wastewater pump stations); and

d. Flooding or other acts of nature.

7. Twenty-four-hour reporting.

a. The permittee shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its

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cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

b. The following shall be included as information that must be reported within 24 hours under this subdivision.

(1) Any unanticipated bypass that exceeds any effluent limitation in the permit.

(2) Any upset that exceeds any effluent limitation in the permit.

(3) Violation of a maximum daily discharge limitation for any of the pollutants listed in the permit to be reported within 24 hours.

c. The board may waive the written report on a case-by-case basis for reports under this subdivision if the oral report has been received within 24 hours.

8. The permittee shall report all instances of noncompliance not reported under subdivisions 4, 5, 6, and 7 of this subsection, in writing at the time the next monitoring reports are submitted. The reports shall contain the information listed in subdivision 7 of this subsection.

9. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the department, it shall promptly submit such facts or information.

M. Bypass.

1. The permittee may allow any bypass to occur that does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of subdivisions 2 and 3 of this subsection.

2. Notice.

a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass.

b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in subdivision L 7 of this section (24-hour notice).

3. Prohibition of bypass.

a. Bypass is prohibited, and the board may take enforcement action against a permittee for bypass, unless:

(1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and

(3) The permittee submitted notices as required under subdivision 2 of this subsection.

b. The board may approve an anticipated bypass, after considering its adverse effects, if the board determines that it will meet the three conditions listed above in subdivision 3 a of this subsection.

N. Upset.

1. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of subdivision 2 of this subsection are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

2. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. An upset occurred and that the permittee can identify the cause(s) of the upset;

b. The permitted facility was at the time being properly operated;

c. The permittee submitted notice of the upset as required in subdivision L 7 b (2) of this section (24-hour notice); and

d. The permittee complied with any remedial measures required under subsection D of this section.

3. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.